GETTING A GRIP
The Census Bureau starts field trials of its new handhelds in two cities. PAGE 14

TRENDY TECHNOLOGY
Michael Gartenberg says fashion is now permanently wedded to technology — and IT has to deal with it. PAGE 28

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MAY 14, 2007 • VOL. 41 • NO. 20 • $5/COPY

BI Tools Still Facing User Push-Back

IT execs say ROI is hard to measure but tout technology's business value

BY HEATHER HAVENSTEIN
SEATTLE

Business intelligence tools can bring a host of advantages to companies, but IT shops must first ensure that the technology is accepted by business users, said a panel of IT executives at the Microsoft Business Intelligence Conference here last week.

Panelists noted that IT managers continue to face several obstacles in efforts to convince users of the merits of BI, including difficulties showing a return on investment.

Despite such challenges, Randy Benz, CIO at Energizer Holdings Inc., said the St. Louis-based battery maker turned

BI Panel, page 60

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Q&A
Page 60

Visa Seeks Security Unanimity

Presses app vendors to follow its lead

BY JAIKUMAR VIJAYAN

Visa U.S.A. Inc. is quietly intensifying its campaign to ensure that vendors of payment processing applications comply with a set of data security guidelines it is pushing as a companion to the PCI standard for securing credit and debit card transactions.

Early last month, Visa sent out a letter listing applications from six vendors that it wants retailers and other merchants to stop using because the products capture and store sensitive card data. That includes information such as personal identification numbers and the card verification value numbers printed on the

Visa Security, page 58

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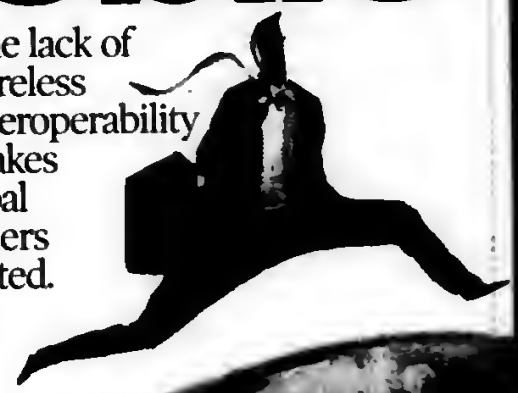
Global Mobile

SPECIAL REPORT

The lack of wireless interoperability makes it hard for global business travelers to stay connected. Read how top companies are piecing together worldwide mobile IT strategies that work.



Stories start on page 31.

PAUL ZWOLAK

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29 Michael Gartenberg believes that fashion is now permanently wedded to technology, and IT has to deal with the implications of that union.

62 Frankly Speaking: **Frank Hayes** advocates IT projects like the one at Lance Inc., which take little nibbles instead of big bites, despite IT's predilection for biting off more than it can chew.

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KNOWLEDGE CENTER MOBILE & WIRELESS

Global Mobile

Editor's Note: U.S. wireless users are taking a leap of faith when they travel abroad. Here's what you can learn from seasoned globe-trotters. **Package begins on page 31.**

Pat Smith Fernandez (right). Read how multinational companies like Stiefel set wireless strategy on a global scale. Plus, four tips for deploying a worldwide mobile IT plan.

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32 International Disconnect. The U.S. trails Europe and Asia in network and device interoperability, and those protocol inconsistencies hit business users hardest when they travel around the world — whether they're roaming from the U.S. to Europe or Asia or vice versa. Plus, from mobile VoIP to cell phone TV, Europeans are advancing wireless features and functionality.

40 Worldwide Wireless. For Stiefel Laboratories, standardizing on wireless devices, platforms and service plans has been anything but easy. "There are competing [wireless protocols] on a global scale," says Stiefel VP

44 Fast & Furious. What does your wireless future hold? David Haskin looks at the next wave of sophisticated (and fast) wireless networks, including mobile WiMax, with its estimated download times of 2Mbit/sec. to 4Mbit/sec., plus CDMA, GSM and UMTS TDD.

48 Have Cell Phone, Will Travel. The city of Stockholm is developing a system for guiding blind and sight-impaired people with voice advisories from GIS-enabled mobile phones.

50 Opinion: Mark Hall says it's important to think about the global implications of wireless, but that shouldn't slow down efforts to implement applications locally.

Travelogue: Dan Tynan, a *PC World* contributing editor and author of the 2005 book *Computer Privacy Annoyances*, attempts to stay on the grid as he wanders overseas. Read about the trials of this quasi-connected world traveler. www.computerworld.com/blogs/mobile

Blogs: David Haskin specializes in mobile, wireless and personal technology issues. Read his and other experts' blogs on topics such as free Wi-Fi, notebooks, BlackBerry devices, telecommuting, PDAs, Skype, mobile advertising and overheated cell phones. www.computerworld.com/blogs/haskin

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TOP CORPORATE SITES IN SECOND LIFE

In the virtual world of Second Life, anything goes – whether your goal is to build a corporate brand, hold ad hoc user group meetings, sponsor a conference or help users find a video card driver.

Reuters (above)
A free gadget at the Reuters site helps you stay in touch with the news in the physical world.

Geek Squad Island (top left)
The most impressive offering here – apart from the bumper-car ride that's modeled after the original Geek Squad vehicles – is deep technical advice. Real-world employees will chat about almost any topic.

IBM (left)
With as many as 230 employees actively involved and almost two dozen islands (some public, some private), IBM is intent on showcasing more than just its products and services: It even invested $100 million in real U.S. money for companies to showcase their ideas.

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Check out our new personal technology section — Tech-Gear — for the latest on those cool gadgets that you've just gotta have! Host Mike Elgan provides hands-on reviews and analysis of the stuff that makes IT fun.
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Eight Privacy Firms to Watch

MANAGEMENT: Jay Cline offers a rundown on start-ups gambling that North American companies have a lot of privacy work left to do and not enough staffers to do it.
www.computerworld.com/itmanagement

File Serving Bolsters CGI Film Development

STORAGE: Imagi Animation Studios says new file-serving technology will dramatically cut the time it takes to make a full-length CGI movie, and it expects a 50% increase in storage efficiency.
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AT DEADLINE

Missouri University Hit by Hackers

The Social Security numbers of more than 22,300 current and former University of Missouri students were stolen in the second breach of the institution's computer systems in the past year. University officials said the attack was launched from IP addresses in China and Australia and that hackers used a Web form to track queries to the school's IT help desk.

Microsoft Cuts Viridian Features

A month after Microsoft Corp. pushed back the beta release of its Windows Server virtualization software, code-named Viridian, the company dropped several key features of the product. Microsoft said it cut the live migration feature that lets users move running virtual machines between physical servers; the ability to add storage, processors, memory or network cards on the fly; and the ability to support more than 16 processor cores.

Sun Weighs GPL For OpenSolaris

Sun Microsystems Inc. is evaluating whether to release OpenSolaris under the GNU general public license, company Chairman Scott McNealy said. He said that there have been nearly 8 million downloads of Solaris since it became available under the Common Development and Distribution License two years ago. McNealy said Sun is debating whether to make the operating system available under both GPL and CDDL licenses.

Red Hat Sets Global Desktop Schedule

Red Hat Inc. has unveiled the Global Desktop operating system jointly developed with Intel Corp. The desktop software, aimed at small business and local government users, was introduced during the annual Red Hat Summit last week in San Diego. The company said Global Desktop will be available next month.

Touch-Screen Ballots Voted Out in Florida

Governor set to sign bill making optical scan the system of choice

BY MARC L. SONGINI

THE FLORIDA Legislature this month passed a bill that would require all voting districts in the state to replace most touch-screen voting systems with optical scan devices. The bill is expected to be signed within days by Gov. Charlie Crist.

The bill estimates the cost of replacing the touch-screen systems at $28.5 million.

The legislature's bill is nearly identical to legislation filed by Crist in February.

However, Crist's call for a paper trail of votes cast on the few touch-screen systems that would remain in the state was rejected by lawmakers. Under the latest proposed law, touch-screen systems would be used only by handicapped voters and would not require a paper trail, officials said.

After the May 3 vote in the Florida House of Representatives, Crist said in a statement that "Florida voters will be able to have more confidence in the voting process and the reliability of Florida's elections."

The vote came a day after the U.S. Election Assistance Commission's ruling that up to $29.7 million in federal funds can be used to replace Florida's touch-screen systems.

A Matter of Trust

Florida Secretary of State Kurt Browning had requested that the EAC let the state use federal Help America Vote Act funds to replace the systems.

In an appearance before the EAC on May 1, Browning said, "There is a perception across the state that indicates many voters do not trust electronic voting machines and want to cast a paper ballot. This perception has become reality in large part, and we want to address those concerns."

Critics of touch-screen voting systems applauded the Florida legislation.

"This is fantastic," said Avi Rubin, a computer science professor at Johns Hopkins University in Baltimore and a Maryland elections judge.

Rubin said Maryland lawmakers have passed a similar law that will take effect in 2010.

"I'm thrilled with the direction these states are going," he said. "It's great that awareness that the risks of direct-recording electronics (touch-screen machines) have grown to the point where legislators understand the issues.

"We had some rough going for a few elections, but switching to paper ballots and optical scans sets us back on course," Rubin said.

Florida may soon eliminate most touch-screen voting machines

Brad Friedman, a co-founder of the voter activist group Velvet Revolution and a critic of touch-screen machines, predicted that such systems will be banned nationwide "sooner or later." Friedman called on Congress to enact legislation similar to Florida's.

Voting machine makers said they expect to continue working with Florida election officials.

"Purchasing decisions are always up to our customers," said a spokesman for Omaha-based Election Systems and Software Inc., which makes touch-screen and optical scan machines. "We look forward to working with Florida customers well into the future."

The spokesman contended that the company's touch-screen systems perform accurately and reliably.

A spokesman for Diebold Election Systems in Allen, Texas, said that use of the company's touch-screen systems in Florida is limited.

A spokesman for Crist said he expects the governor will sign the bill within a week.

Once the bill is signed, the Florida Division of Elections will meet with the state's 67 county elections supervisors to devise a plan for replacing the machines, said a spokesman for Browning.

The officials will decide how many touch-screen systems need to be disposed of and the balance owed to manufacturers for those machines, he said.

A funding plan is expected to be completed by the end of July, Crist's spokesman said.

Congress to Consider Bill Requiring E-voting Paper Trail

THE COMMITTEE on House Administration in the U.S. House of Representatives last week approved a bill that would require all touch-screen voting systems to produce a paper receipt for each ballot cast.

The Voter Confidence and Increased Accessibility Act could come to a vote by the full House this week, according to Rep. Rush Holt (D-N.J.), the bill's sponsor.

The bill also mandates routine random audits of election results to ensure the accuracy of voting tallies.

Holt has long been a critic of touch-screen systems that fail to provide a voter-verified paper trail that can be used for canvassing or recounts. He was unable to get the House to act on a similar bill he filed last year.

"Until we require that voting systems produce a voter-verified paper ballot, the results of our elections will always be uncertain," Holt said last week in an e-mail statement to Computerworld.

"I hope and expect that Congress will move quickly to pass this legislation so that all voters can be confident that their votes are counted as cast," he said.

Holt said that the bill offers elections officials a flexible timeline for rolling out new e-voting hardware and boosts the amount of federal funds earmarked for such projects.

The bill also provides for more intellectual property protection for the makers of e-voting hardware and software than in prior versions, he noted.

The vote by the committee, which oversees elections, drew mixed responses from e-voting experts and critics.

"In November, 18,000 votes went missing on voting machines in Sarasota County, Fla.," stated Ralph Neas, president of the People for the American Way Foundation, which supports the bill. "If voting machine problems are a sickness, the Holt bill is good medicine. This bill will end paperless voting – period."

But Michael Shamos, a professor who specializes in e-voting issues at Carnegie Mellon University in Pittsburgh, called the bill "terrible."

He contended that the proposed bill in effect outlaws touch-screen machines by imposing standards so strict – such as banning roll-to-roll printing configurations – that they can't be met by any existing system.

Moreover, Shamos said, the bill assumes that optical scan systems are better, safer or more secure than touch-screen systems. "The catalog of manipulations of optical scan systems is as long as your arm," he contended.

A spokesman for Holt said the legislation is designed to preserve verifiability and the ability to conduct audits. It's not intended to require that voting districts use specific voting devices, he added.

– MARC L. SONGINI

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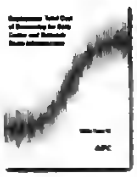

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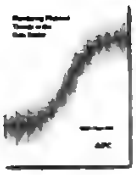

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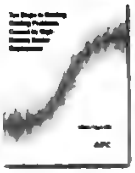

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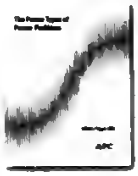

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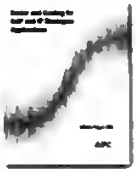

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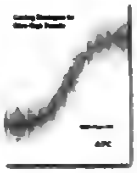

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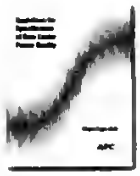

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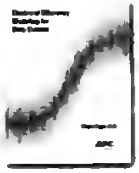

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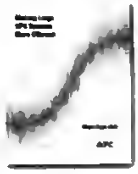

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OUT WITH INEFFICIENCY.
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EMC Adds VMware Support to ControlCenter

Storage manager update supports virtual servers but isn't cluster-aware

BY BRIAN FONSECA

EMC CORP. is set to end a two-year wait by its users for a new version of its flagship ControlCenter storage resource management (SRM) software.

Version 6.0 of the software, to be introduced this week, includes support for EMC's virtual server technology and more flexible reporting and customization capabilities, the company said.

Lori Motzko, a Windows systems manager at Louisville, Ky.-based SHPS Inc., said the lack of support for EMC's VMware virtualization tool was a glaring problem with earlier versions of ControlCenter.

"One of the major frustrations that administrators have with EMC is they own VMware and yet they don't have agents compatible with ControlCenter right now," said Motzko. "When you're zoning disks — and VMware is a zone-disk hog — you have to do it all manually. Now they tell me they have a [VMware] agent. That's a big deal."

SHPS, a health management tools provider, currently runs ControlCenter 5.2 with Service Pack 5 and has 2TB allocated to its VMware ESX servers.

Customer Urgency

Motzko said she has been "frantically waiting" for EMC to upgrade ControlCenter. She noted that the growing dependency of data, applications and databases upon available disk space is making SRM a must-have capability for her to properly manage, reallocate and provision storage.

However, she also criticized the new offering for the lack of clustering awareness in StorageScope, the SRM monitoring and reporting component of ControlCenter.

"I'm kind of upset that in 6.0, [StorageScope] is still not cluster-aware. That is very aggravating to me," noted Motzko, who said the omission leads her SRM reports to initially say a cluster server sharing disk has twice as many available gigabytes at the host level than it actually does.

EMC said that it expects the new VMware support will allow organizations to boost capacity planning by more closely aligning physical and virtual environments through SRM visualization, provisioning and mapping.

Pricing for Version 6.0 of ControlCenter starts at $39,000 for a 10TB configuration, the company said.

Available at the end of June, the updated ControlCenter can help administrators discover individual VMware guests, such as the version of an operating system, IP address and guest name, EMC said. The system can then offer reports about virtual disk file and raw storage device capacity mapped to each virtual machine guest, it noted.

"When you're zoning disks – and VMware is a zone-disk hog – you have to do it all manually."

LORI MOTZKO, WINDOWS SYSTEMS MANAGER, SHPS INC.

ControlCenter includes 12 out-of-box built-in reports, and it can take action on files by creating policies to make changes and clean up storage environments by removing duplicate files, EMC said.

In addition, the upgraded SRM software expands active management capabilities for Hitachi Ltd. storage arrays and features support for non-EMC storage systems based on the Storage Management Initiative Specification 1.1 standard.

Forrester Research Inc. analyst Andrew Reichman said some organizations avoid using SRM technology because of its cost and complexity. However, he said, eschewing the technology could lead to more problems — like making ill-advised decisions.

"Problem No. 1 is customers don't seem to be getting what they need" from SRM today, said Reichman. Still, he added, "without it, when you run out of capacity on a platform, you can't react smart, so you act fast and under the gun. Then you buy storage at a bad price in a rush purchase."

Until larger SRM vendors like EMC make significant product improvements, Reichman suggested that organizations may want to consider agentless options by smaller vendors such as Onaro Inc. and MonoSphere Inc. ▶

NetApp Set to Launch De-duplication Tool

BY BRIAN FONSECA

Network Appliance Inc. this week plans to launch its first data de-duplication technology for primary corporate storage systems.

The new NetApp Advanced Single Instance Storage (A-SIS) software provides de-duplication across NetApp's NearStore R200 and FAS storage systems, the company said.

A-SIS ends a multiyear wait for the technology by Davinder Gupta, manager of network systems at Intuitive Surgical Inc., a medical device maker in Sunnyvale, Calif.

Watching the amount of data at his company mushroom at a rate of 8% per month in recent years, Gupta knew it wasn't practical to simply buy more storage, he said.

"Because of our explosive growth, I've been checking in with NetApp for the last few years, waiting for de-duplication," Gupta said. He also wanted to avoid introducing technology from a different storage vendor into his network, he explained.

He oversees 15TB to 20TB of data stored in a variety of systems, including NetApp FAS920, FAS3020 and NearStore R200 arrays.

Gupta said Intuitive Surgical tested a beta version of A-SIS against a 100GB data set and achieved a 37% increase in storage capacity. The test included a variety of data types, including Excel, Word and JPEG files, as well as movies, he said. He noted that there was no performance degradation during file access.

Gupta expects the capacity of existing storage systems to grow by about 25% once a production version of A-SIS is up and running. He said he also expects that the software will significantly shrink backup times and slow the need for additional storage capacity.

Intuitive Surgical is now installing the production version of the software, Gupta said.

He noted that his firm did discover during the testing process that A-SIS can force end users to clear snapshots, which could lead to accidental backup removal.

"Because of our explosive growth, I've been checking in with NetApp for the last few years waiting for de-duplication."

DAVINDER GUPTA, MANAGER OF NETWORK SYSTEMS, INTUITIVE SURGICAL

Officials of Sunnyvale, Calif.-based NetApp said that A-SIS offers block-level de-duplication capabilities across all data types and has been tested for backup, archive, compliance storage, home directory and virtual server environments.

The software is currently available at no additional charge for users of NearStore R200 arrays and at an undisclosed price on FAS platforms.

An earlier iteration of the A-SIS technology was strictly for NetBackup environments, NetApp noted.

David Russell, an analyst at Gartner Inc., pointed out that the new offering lacks an intuitive graphical user interface, instead relying on a command-line interface.

However, Russell said that de-duplication is garnering enormous interest in large organizations because of the technology's ability to protect and store large amounts of data for backup and archiving, retain data longer for compliance or business intelligence needs, and better protect data stored by mobile workers.

"Before, those areas went underserved or were flat-out ignored," said Russell. "People en masse are re-evaluating their infrastructures. One of the reasons [de-duplication] is sought after is the payback is very demonstrable."

In particular, Russell said that in large organizations, file management can easily go unnoticed, compared with the scrutiny e-mail and database administration typically get.

"Files are kind of left for dead, and no one really comes back to groom them or 'garbage-collect,' " Russell added. "So organizations keep backing up that data that may actually be dormant." ▶

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BRIEFS

Amazon Settles Suit, Signs Pact With IBM

Amazon.com Inc. has paid IBM an undisclosed amount of money to settle all outstanding patent lawsuits between the two companies. The two firms have also signed a long-term patent cross-licensing agreement that gives Amazon access to IBM's patents on Web technology. The two companies have been haggling over patents since September 2002, when IBM claims it first approached Amazon about a licensing deal.

VMware Updates Workstation Tool

VMware Inc. has unveiled a new version of its workstation virtualization product that includes support for Microsoft Corp.'s Windows Vista operating system and dual monitors. The new VMware Workstation 6 tool also features the ACE Option Pack, which lets the user store a virtual machine setup on a portable device, such as a USB drive, so it can be transferred to another computer. The new version costs $189, and the ACE Option Pack is $99.

Cisco Reports Profit, Revenue Growth

Cisco Systems Inc. reported strong growth in revenue and profits for its fiscal third quarter, during which it made several acquisitions that it expects to help drive Web 2.0 initiatives.

CISCO BY THE NUMBERS

	REVENUE	
Q3 '07	$8.9B	$1.9B
Q3 '06	$7.3B	$1.4B

SAP to Acquire Software Vendor

SAP AG has agreed to acquire OutlookSoft Corp., a maker of performance management software, for an undisclosed sum. SAP said it expects the acquisition to boost its standing among corporate chief financial officers. The deal is expected to close in 30 days. SAP said it plans to retain all 250 workers from the Stamford, Conn., firm.

ON THE MARK

HOT TECHNOLOGY TRENDS, NEW PRODUCT NEWS AND INDUSTRY BUZZ BY MARK HALL

Neither Snow, nor Rain, nor Heat . . .

. . . stays the relentless arrival of junk mail and spam. After spending far too much time and money fighting to keep spam out of corporate in-boxes, it's likely that IT workers often go home to a pile of junk mail on their kitchen tables. Highly likely, in fact, given that 2006 was the second straight year in which U.S. postal workers delivered more advertising than first-class mail. But there may be good news on both fronts. The Postal Regulatory Commission has recommended to U.S. Postal Service authorities that they raise the rates for standard mail, which is what junk mailers pay, by as much as 40% this year. That increase should force the worst offenders to refine their direct-mail strategies, says Sharon Neuenfeldt, a vice president at Decision Intelligence Inc. in Minnetonka, Minn. She says that until this week, the Postal Service had designed its rates so that the more mail sent to a given ZIP code, the deeper the discount a direct mailer got. So, it was actually cheaper for junkers to blanket entire ZIP codes than to target their mailings. Another bright spot is that 10 states are considering "do not mail" legislation that would help people fend off direct marketers much as the successful "do not call" law has helped them avoid tedious telemarketers. Neuenfeldt, who consults with direct marketers on methodologies for effective database management, admits that the proposed regulations arose because some junk mailers "don't abide by the self-policing rules of the industry." Although she opposes government meddling — pointing to the Direct Marketing Association's claim that unsolicited mail generates $600 billion in business for the economy — Neuenfeldt does think the threat of regulation has spurred the group, albeit tardily, to crack down on its members to clean up their acts, or, um, databases.

There's good news for spam haters, too. According to David Atlas, vice president of marketing at Goodmail Systems Inc. in Mountain View, Calif., over the next 24 months, AOL LLC and Yahoo Inc. will begin rolling out in the U.S. a new antispam service that certifies that e-mail senders have been audited and accredited as a known good source. Mail that has been certified and received at AOL and Yahoo will have a blue icon attached, indicating that it's safe to open. Atlas says certified e-mail will get to bypass AOL's and Yahoo's content filters and is guaranteed to reach the recipient. He says versions of the certified mail scheme will be ready for Exchange and Notes users in 2008 and 2009. "One day in the future, all e-mail will be certified," Atlas predicts.

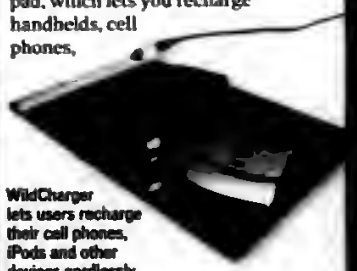
And e-mail is the killer app for . . .

. . . mobile users, so they need protection, too. That's the idea behind Connect Mobile for Smartphones from Aventail Corp. in Seattle. Chris Witeck, director of product marketing, claims that many IT managers secretly loathe the extra cost and effort it takes to deploy proprietary BlackBerry servers and devices. He contends that they prefer Windows Mobile smart phones and handhelds because they can easily port their corporate Windows applications to run on the handheld units. And as Randy Boroughs, vice president of product management, points out, "The killer app for mobile is e-mail. And Outlook won that war a while ago." Connect Mobile for Smartphones can apply watermarks to both Windows Mobile smart phones and handhelds to ensure that only those devices can connect to the corporate network through Aventail's secure SSL VPN. End users can access your intranet with their handhelds and open documents on file shares. And as users roam across wireless access points, they won't lose their connections through Aventail's SSL VPN. The $995 software module for Aventail's EX appliances will be available in Q3.

Aventail's line of EX appliances gets a new software module for Windows Mobile devices.

Charge your handhelds . . .

. . . without plugging them in. Come this July, WildCharge Inc. in Scottsdale, Ariz., will begin selling its WildCharger pad, which lets you recharge handhelds, cell phones, iPods and other devices simply by setting them on it. That eliminates the need for device-specific charger cables, although company President Izhar Matzkevich notes that you'll have to add a $20 adapter to each handheld before you can get a charge from the pad. The adapters are designed to replace the back cover plates specific to each mobile device. The WildCharge pad gets power through a wall outlet or a car's lighter socket, or it can be attached to a portable battery. Matzkevich claims that multiple handhelds on a pad will charge simultaneously. He hopes that mobile device manufacturers will soon integrate WildCharge electronics into their products to eliminate the need for the adapter. He says the WildCharger will cost about $50.



WildCharger lets users recharge their cell phones, iPods and other devices cordlessly.

BRIEFS

California Sues Training Firm

The state of California has filed a lawsuit against a defunct computer training school for closing its doors without refunding $2.5 million in tuition fees. MicroSkills San Diego LLC, which operated from 1999 through last October, is charged with billing 350 students out of tuition fees of as much as $25,000. The suit also seeks $2 million in civil penalties. The school's owners could not be reached for comment.

Marvell CEO Retains Post After Scandal

Marvell Technology Group Ltd. said that its co-founder and its CEO will remain with the company despite their roles in stock backdating fraud. However, CEO Sehat Sutardja will step down as chairman, and co-founder Weili Dai will shift from chief operating officer to director of strategic marketing and business development. At the same time, Marvell said former general counsel Matthew Gloss was fired, and Chief Financial Officer George Hervey has resigned because of the scandal.

Microsoft Updates Office for Mac Suite

Microsoft Corp.'s Macintosh business unit has released an update of the Office 2004 for Mac suite of business software. The new version offers improved security features, including fixes for vulnerabilities that an attacker could use to overwrite files in a computer's memory.

Siemens Splits OpenScape Platform

Siemens Communications Inc. last week expanded its OpenScape platform into three products. The line includes OpenScape Enterprise, a new version of the original product; OpenScape VoiceLink, which focuses on integrating desktop phones with a PC-based Microsoft Office Communicator client; and OpenScape Enterprise Hosted, an easy-to-start system that carriers can use to provide a subscription service.

Census Bureau Takes Stock of Its Handhelds

Agency starts to test new devices to gauge usability

BY MATT HAMBLEN

ABOUT 1,400 U.S. Census Bureau workers carrying wireless handhelds began fanning out across Fayetteville, N.C., and Stockton, Calif., last week in a dress rehearsal to see how the devices will be used during the 2010 census.

Initially, the workers equipped with the handhelds are verifying street addresses and adding or deleting the locations of homes that have been built or removed since the previous census. During the actual census, workers will also use the devices to enter answers to questions during in-person visits to the homes of residents who haven't sent in written questionnaires.

The handhelds are equipped with GPS mapping technology and biometric security features, and they can transmit information to central databases via wireless connections. Eventually, 500,000 census takers are expected to use the devices, said Mike Murray, vice president of the census program at Harris Corp., the lead systems integrator on the project.

The Census Bureau signed a contract for the project with a team of vendors led by Melbourne, Fla.-based Harris last spring. The agency plans to spend $600 million on the handhelds and related technology over the next five years as part of the rollout, which will involve 13 data centers and nearly 500 field offices.

The seven-week rehearsal will give officials a chance to evaluate the usability of the handhelds by a diverse workforce. "When you're hiring 500,000 people so quickly, you can't be too picky [about] whom you're hiring, and they'll have all kinds of technology backgrounds," Murray said.

Census Bureau workers will use the handhelds to verify [illegible] and enter the locations of houses on GPS generated [illegible]

In addition, Harris will be able to see if its field office servers are sized properly to handle the data sent to them from the handhelds, which are being custom-built for the Census Bureau by High Tech Computer Corp. in Taiwan.

The Census Bureau had planned to control access to the handhelds through the use of both passwords and fingerprint scans. But it decided to rely only on the scans in order to simplify the use of the devices, Murray said. He added that the biometric approach is still very secure on its own.

Bob Egan, an analyst at TowerGroup in Needham, Mass., said fingerprint scans or other biometric checks are increasingly being adopted on handheld deployments involving industrial applications or other heavy-duty uses.

"The bad news is that a lot of biometric devices still have a lot of issues," Egan said. That can result in both false positives and negatives, he added. For example, users sometimes are blocked from accessing their devices because of moisture on their fingers.

Another potential technical issue involves the GPS antenna chip built into the handhelds. Murray said the chip was chosen to enable the devices to find GPS satellites on cloudy days or from inside doorways as workers record information from residents.

A common problem with some older GPS devices is that they're unable to find locations in overcast conditions. But Harris checked the Census Bureau handhelds in "all different environments and never had a problem with cloudy days," Murray said. "We hope we checked everything. At least, that's the goal."

Microsoft, Packeteer Team Up on WAN Accelerator

BY MATT HAMBLEN

Microsoft Corp. and Packeteer Inc. last week jointly announced a branch office appliance designed to provide WAN throughput optimization capabilities in tandem with native Windows applications.

With the new Packeteer iShaper device, IT workers will be able to manage and speed up WAN traffic in branch offices while utilizing Microsoft technologies such as Active Directory and the Internet Security and Acceleration Server to boost security protections, said Bala Kasiviswanathan, director of Windows Server branch and storage solutions at Microsoft.

Microsoft and Cupertino, Calif.-based Packeteer are collaborating on the engineering and marketing of the iShaper appliance, which is being manufactured by Packeteer.

Scott Erickson, chief technology officer at Erickson Retirement Communities LLC in Catonsville, Md., uses Packeteer's existing PacketShaper appliance and is beta-testing the iShaper device. "Certainly, it has potential," he said.

Cost Considerations

Erickson said iShaper's $11,000 starting price appears to be low enough that he could afford to install one of the appliances at each new branch office as his company, which builds and manages retirement housing communities, continues to grow.

In addition, Erickson hopes to use iShaper to combine file services and other applications with his WAN for easy and fast transmission of bulky engineering drawings and other materials that field engineers need to access.

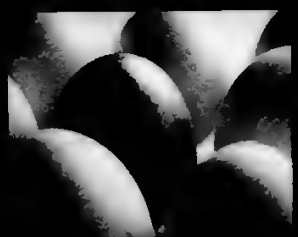
Zeus Kerravala, an analyst at Yankee Group Research Inc. in Boston, said the joint marketing arrangement between the two vendors gives Microsoft the ability to sell additional server-level software to customers attracted by Packeteer's acceleration technology. "It's incremental for Microsoft, and any box Packeteer sells is the upside for Microsoft," he said.

But Riverbed Technology Inc. has outdone Packeteer on sales over the past two years and is the leader in the application acceleration market, according to Kerravala. "Packeteer had their chance after 10 years in the market and let Riverbed walk right over them," he said, adding that Citrix Systems Inc. also offers WAN optimization products.

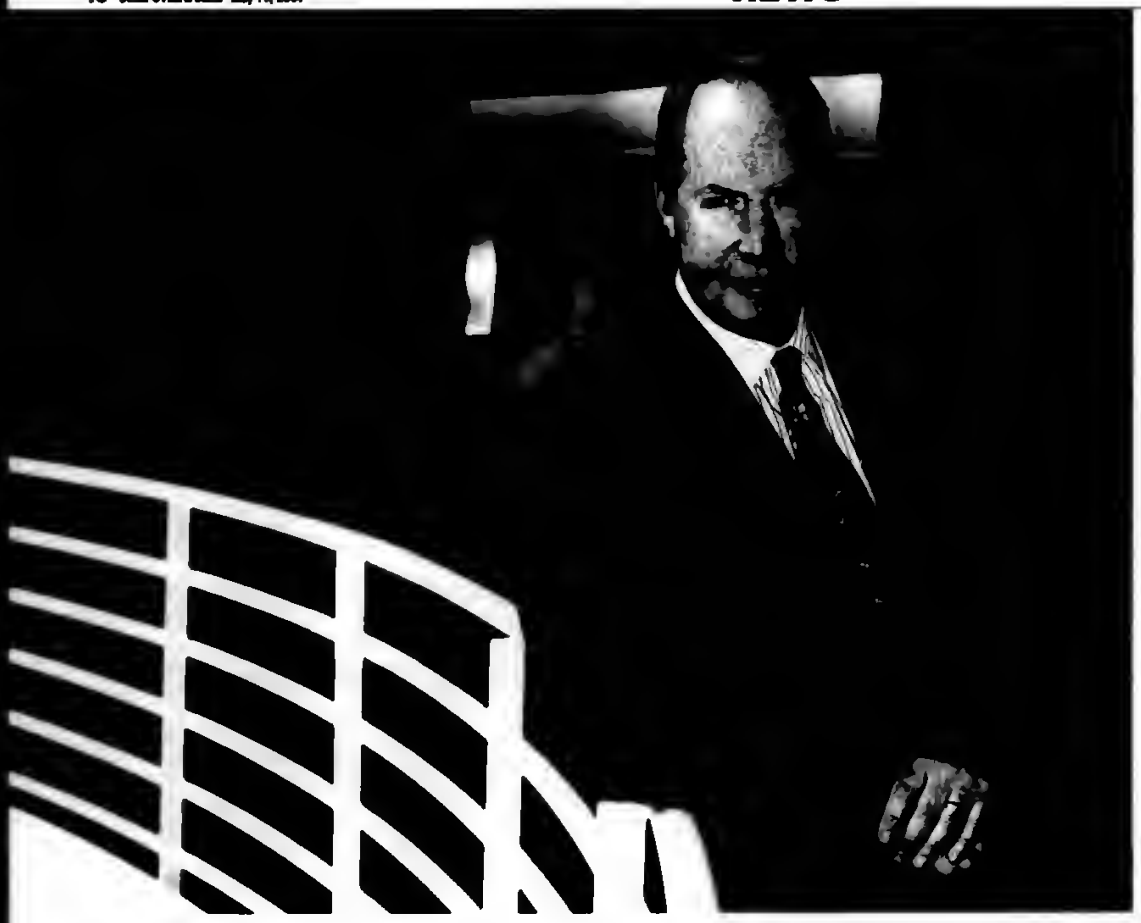
The iShaper product supports over 600 applications and is aimed at branch offices with more than 50 end users, Microsoft and Packeteer said. Shipments are slated to start later this quarter, and additional models are due by year's end.

Innovations by **InterSystems**

Make Applications More Valuable



See a demonstration at InterSystems.com/Ensemble19A



John Swainson

CA's president and CEO reflects on his vision, litigation prospects and the ghost of Sanjay Kumar.

THE GRILL

There was quite a bit of acrimony between IBM and CA in 2004. That April, CA's Mark Barrenechea said software was an "afterthought" at IBM, and he called Steve Mills, the head of IBM's software business and your boss at the time, the "VP of afterthought." How did the conversation with Mills go when you told him less than six months later that you were going to take the CA job? That was not an easy conversation, because I worked for Steve for 13 years. I have great respect for him. He has done an incredible job building a business inside a company that didn't historically value software. There's a nugget of truth in what Mark was saying — software was an afterthought at IBM at one point. Steve has changed that.

After the accounting fraud that took down your predecessor, Sanjay Kumar, did the board of directors adopt a policy stipulating that the positions of chairman and CEO would not be held by the same person at CA? The board is indifferent about that. The practical nature of the situation is that you had to have the chairman and the CEO separate. The chairman's role for the last two years has been, and will continue to be for a little while longer, to deal with the regulators, the legal issues, all of that sort of external stuff, leaving the CEO to deal with running the company. There may come a time when it makes sense to combine them, but in a time of crisis, it's better to have them separate.

Have you met Kumar? I met him twice — once in 1999, and once in 2000, and not since then. Interesting man.

Have you ever met CA co-founder Charles Wang? I met Charles once back in the mid-'90s. Very difficult meeting. I have not met him since then, which probably says a lot.

Do you expect that CA will bring a civil suit against Wang, as recommended by your board of directors' Special Litigation Committee? We have not made any determination about that. The SLC gives a recommendation to the court as to how these cases should be disposed. Once the SLC's report is accepted [by the court], then the company needs to decide what it does next.

In your view, what needs to happen for justice to be done? I don't know. And I say that very honestly. I do not know what should happen next. I think we've got to let the court [process] play out. On one hand, there's sort of this natural inclination for revenge. On the other hand, the company needs to put this stuff behind it and move on. I cannot tell you where the board will come out on this. This is clearly not a decision I will make by myself. It's a decision the board will make with due consideration of all the facts after the SLC report has been accepted.

The SLC concluded that Wang created a "culture of fear" at CA. Do you see any vestiges of that left? No. The ghost of Sanjay is in the halls, but there's not much of Charles left at CA. Charles has been gone a long time. By my estimation, only about 30% of [our workforce] was there when Charles was there. So there are more new people in the company than old; there are many more people who don't know Charles than do. And Charles didn't leave a big legacy. He had been disengaging from the company, as I understand it, for quite a while before he actually left in 2002.

In 2005, I wrote an editorial in response to your new vision for CA, which centered around what you called Enterprise IT Management. I said this: "That's not a vision, John. That's what your users do. All the time. Referring to it by the goofy EITM acronym doesn't elevate what they do to a vision. It reduces it to marketing blather." In retrospect, do you think I had a valid point, or was I completely off base? You were completely off base. It is a very simplistic message — some might say too simplistic. It is astonishing to me how, in this industry, we don't do the simple things well and to completion. We do lots of hard things partially. So the fact remains that no one to date had actually put forward a way to take the end-to-end panoply of stuff that people do in IT and figure out how to connect it, how to manage it, how to secure it

Continued on page 18

Dossier

Name: John Swainson

Title: President and CEO

Company: CA Inc.

In high school, he was: A geek.

Ask him to do anything but: Play golf with someone who knows what they're doing.

Favorite nonwork pastimes: Fishing and flying airplanes.

Something most people don't know about him: I'm a warm, sensitive guy.

GO

Protect The Universe

US PATENT

6,256,664

Symantec/Altiris

SOFTWARE GRAVEYARD

IBM/Tivoli Supercharger

Send Tivoli into Warp Drive

US PATENT

6,604,130

US PATENT

6,801,929

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New Zealand PATENT

510258

The Basic Idea

Australia PATENT

762054

The Basic Idea

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Canada

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Israel

Patent Pending

Mexico

Patent Pending

Configuration

Patent Pending

Policy Enforcement

Patent Pending

Chile

Patent Pending

EPC

Patent Pending

India

Patent Pending

Japan

McAfee/Citadel Ignores 40% of the Computers

Microsoft/SMS Supercharger

Send SMS into Warp Drive

US PATENT

[Without this, you could wait days or weeks for verification]

6,356,936

Instant Advisories

We're playing monopoly for real. Tell your leader to schedule an ever so-polite free* demonstration showing how we empower you at www.bigfix.com/monopoly or call 510-652-6700 x116. We'll also send you a color poster of this planetary proclamation.

BIGFIX

Never before have so few done so much so fast for so many

McAfee EPO really isn't Single Console

You're Exposed.

McAfee/Hercules Delay of Game

Terrorists Win

US PATENT

6,263,362

Inspectors

US PATENT

[Without this, security products tend to have terrible security]

6,879,979

Secure Network Inspectors

US PATENT

[Without this, security products tend to have terrible security]

6,931,434

Patent Infringement

THERE'S A REASON BIGFIX HAS TAKEN OVER THE PLANET!

"I told someone once that I thought we would have everything sorted out in a couple of years. . . . It certainly reflected a little bit of my naiveté about how challenging a process it would be."

JOHN SWAINSON
CEO, CA INC.

Continued from page 16

or any of that stuff. So to say EITM is people's job description is true. But they're not doing it. And they're struggling to do it with chewing gum and baling wire, and there was no vendor who was standing up and saying, "OK, I'll take that on."

In that same editorial, I faulted you for your decision to eliminate all 300 of your customer advocate positions worldwide. In hindsight, do you still believe that was a good decision? That was one of my best decisions, and here's the reason why: What was happening was that 300 people were the customer voice. And 5,230 [salespeople] were abdicating their responsibility. The sales force felt that because there were these 300 people out there, they didn't need to worry about customers. And I said, "A sales force cannot not be worried about customer satisfaction." And the fact that these people were out there, supposedly as the proxies for that, is a crutch. I took [it] away and said, "Now, every salesman's first responsibility is customer success." And it worked.

What's the best decision you've made since you became CEO of CA? I'm very happy with the management team that we've hired. It took time to find the right people. I'm very happy with the decision to create EITM, because I think it gave the company and customers a rallying cry. It gave us an umbrella under which we can put a lot of things. I'm very happy with some of the acquisitions we've made.

I think the reorganization of the sales force was a critical decision that we made at a very difficult time. If you remember, this time about a year ago we had really screwed up our whole commission process. While unrelated to the organization of the sales force, that was causing churn and consternation in the sales force because no one knew if they were going to get paid or how much they were going to get paid. We looked at that and said, "This is a big problem; we have to fix it. But at the same time, we also have a sales force that's organized wrong — around products, not relationships. And since we completely screwed this thing up, we might as well take the extra time and organize it the way we want it."

So we bit the bullet and did the reorganization of the sales team between June and September of '06.

And the worst? I told someone once that I thought we would have everything sorted out in a couple of years. That may not have been a decision; it was just a really foolish comment. And it certainly reflected a little bit of my naiveté about how challenging a process it would be.

What's your biggest headache right now? I don't think I have any headaches in the sense of huge things to fix. There are a lot of business issues that we need to work on. We still have an awful lot of work around re-engineering the business processes at CA. CA didn't have normal processes that a company of its size would have. It had processes of a company a quarter, a third or a tenth its size. It behaved like a small business. And if you think about the way small businesses behave, they entrust a lot of power to individuals; they don't have well-defined processes for those individuals to make decisions.

This is, to some extent, tied up with [Charles Wang's] view of how the business should operate, and the company overran that in size and scale. So getting well-defined processes in place is still a huge priority for us and will continue to be for a couple of years.

– INTERVIEW BY DON TENNANT

THE GRILL

Google Makes Over Its Web Analytics Service

Search firm adds data reporting capabilities to Web site usage monitor

BY JUAN CARLOS PEREZ

Google Inc. last week introduced a revamped release of its Google Analytics service with several updates, including an expansion of the Web site usage monitoring tool's data reporting capabilities.

Products like Google Analytics continue to attract the attention of large companies looking to understand how users arrive at their Web sites — and what they do once they get there.

Data compiled by such products can help webmasters make their sites more effective tools for displaying online ads, providing sales leads and generating e-commerce transactions, Google said.

American Cancer Society Inc., a Google Analytics user for about 18 months, has been testing the new version of the service for the past month and found significant improvements, said Adam Pellegrini, the Atlanta-based nonprofit's online strategy director.

In particular, he said, the ability to schedule the automatic creation and e-mail delivery of reports as PDFs has been a big help for the group's two Google Analytics users. The product previously required that those users manually reformat reports into PDF files and send them out via e-mail, he said.

Pellegrini would like Google to add the ability to deliver analytics reports and notifications via RSS content syndication, as well as to create rich desktop applications that would allow the service to be used offline.

Urchin Acquired

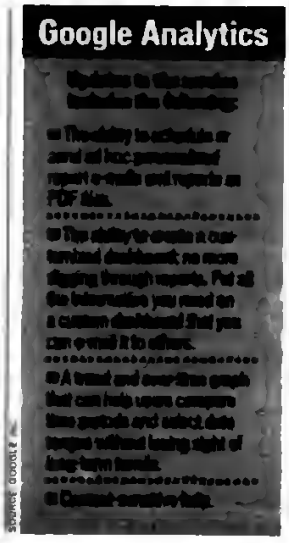
Google entered the Web analysis market a little over two years ago with its acquisition of San Diego-based Urchin Software Corp., whose technology forms the basis of the service.

Brett Crosby, a Google Analytics senior manager, said that the upgrade is designed to make the product's interface more intuitive and its data clearer and easier to digest. Thus, the service can be more effective in providing data needed to make business decisions, Crosby said.

The user interface has been redesigned, and the product has gained new ways of presenting Web usage information and displaying and delivering reports, he added.

Google has also added what it calls "plain language" descriptions of the data to make it more understandable, Crosby said.

Google will begin rolling out the Analytics upgrade today, and it expects to finish it in a few weeks, Crosby said.



Perez writes for the IDG News Service.

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Snack Delivery Workers Get Fed New Handhelds

Food company puts off operational changes to speed up hardware rollout

BY MATT HAMBLEN

LATE LAST MONTH, Lance Inc. completed an upgrade to new handheld computer hardware and software for its 1,500 snack-food delivery and sales workers — a rollout that took less than four months.

Mark Carter, vice president of strategic initiatives at Lance, said the Charlotte, N.C.-based company was able to finish the upgrade project quickly because it decided not to make any significant changes to internal business processes for the time being. Instead, Lance plans to make incremental changes over time, Carter said.

"We were anxious to replace the old hardware, and it was important to make it happen quickly," he said. "So we basically replicated the functionality of the old system in a new environment and did not change the way things worked for the end user."

New Devices, Same Steps

The field workers, who take snack-food orders from retailers and then deliver the goods to stores, were given ruggedized Motorola Inc. handhelds running Windows Mobile 5.0 and a mobile sales and distribution application developed by Apacheta Corp. in San Diego.

Communication functions have been changed somewhat on the Motorola MC9090 devices, Carter said. But business tasks are processed using roughly the same steps as they were on Lance's older handhelds, which ran Windows 95 and had been in use since 1998. Those devices were made by the former Norand Corp., which is now part of Intermec Technologies Corp.

Taking a phased rollout approach, Lance distributed the Motorola handhelds to 150 users each weekend. The sales and delivery reps can use a Bluetooth connection and put the handhelds in a cradle connected to a small printer to create invoices and related records, Carter said. The cradle can also be used to exchange data with sales and inventory systems at retailers.

Bob Egan, an analyst at TowerGroup in Needham, Mass., said delaying business process changes until after new hardware is deployed lets end users get "the latest and greatest handheld devices" without having to learn an entirely new environment. "And it allows a company to ramp up and rely on the skills of the workers," Egan said.

Lance does plan to eventually change the way its sales and delivery workers do things from a business process standpoint. "We're looking at ways to simplify their jobs and to bring standardization to the methods we use," Carter said.

He noted that the company is continually adding new delivery routes and drivers and that it wants to use its supply chain technology to provide "predictive" ordering capabilities. That way, even an inexperienced worker could quickly supply a retailer with the correct types and amounts of snack foods based on its actual inventories, Carter said.

Such changes should be simple to implement, according to Carter, because Apacheta's RouteAce software is based on prebuilt components that can be altered easily. He said it took only a month for Lance and the software vendor to build a prototype implementation for the new handhelds.

Lance spent "millions of dollars" on the upgrade, Carter said. He hasn't calculated an exact cost-savings figure, but he said the time that sales and delivery workers spend transferring data has been cut by more than half. ▸

Lance's delivery workers now carry ruggedized Motorola handheld devices.

CodeGear CEO Pushes AJAX, Dynamic Languages

BY HEATHER HAVENSTEIN

***Jim Douglas** late last month was named CEO of CodeGear, the developer tools business spun out of Borland Software Corp. last November. Douglas was previously president and CEO of electronic design automation start-up ReShape Inc. In an interview with* Computerworld, *Douglas spoke about his plans to shepherd Scotts Valley, Calif.-based CodeGear out of its traditional Java-only strategy by adding Asynchronous JavaScript and XML (AJAX) tools and dynamic languages, and by strengthening its customer service operation.*

Former CodeGear CEO Ben Smith said publicly five months ago that he planned to be at the company for a while. What happened? Ben's forte is really getting things jump-started. The plan internally was for Ben to get this thing off the ground and cooking and then bring in someone with more operational experience. He did a great job of getting the company ready for that handoff. Ben is still around. [He] still works with us on a couple of different fronts.

What are your impressions of CodeGear after a month as CEO, and what issues do you plan to tackle right away? If you contrast Borland's business from CodeGear, they have a high-touch, low-volume business versus our side of the world, which is low touch and high volume. The company is not operationally where it needs to be to excel at propagating that business. One of the things that is important to me is what it is like [for customers] to interact with CodeGear from the beginning. It is not where it needs to be. A lot of that is from the way this organization has been run over time.

What are some areas you need to improve? How you purchase from us, how you install our product. It is not that they are terrible, but they are not world-class. We need to make sure that we think about how customers interact with us holistically — [at] every touch point with the organization.

Do you plan to continue your predecessor's strategy of expanding into the AJAX tools and dynamic-language businesses? New and emerging applications will require different methodology, processes and potentially languages. We have to be on top of that. Java has been prolific in enterprise software, but it has grown incredibly complex. Ruby on Rails is a potentially new approach, in terms of language and methodology, to add a lot of productivity to enterprise developers. We need to make sure we have strong offerings in these areas. The Rails framework adds the robustness needed to do prime-time enterprise development.

Can Borland ever recover from ignoring Eclipse for many years? I wasn't at Borland, so I am only speculating. There were a lot of people who had successful technology dislocated because of open source. [Many were] in the denial phase, [thinking] that this thing was transient and they could overcome it. That was the view that Borland probably had. You can't do that. Eclipse became extremely useful as it evolved. We think, how can we change our model, and how we add value? Eclipse is a set of nice little utilities at the bottom of the food chain of IDEs, but it is not a full-blown development model. You make sure you offer a mechanism for people to effectively adopt [open source].

What is the biggest challenge you face today? From a corporate standpoint, we have a lot of work to build brand equity. We have 6 million or 7 million people in our developer community, but CodeGear is not well known. We have this legacy with the Borland brand. That is a hard path for anybody; it is a little bit harder for a company carved out of a larger organization. For the past four to five months, we have been on a blitz to tell the story of CodeGear. ▸

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GLOBAL

An International IT News Digest

Nokia Siemens Venture To Cut 9,000 Jobs

ESPOO, FINLAND

NOKIA SIEMENS NETWORKS, an Espoo-based joint telecommunications venture of Nokia Corp. and Siemens AG, has announced plans to cut 9,000 jobs, including about 3,500 in Fioland and Germany.

The company had said in April, when the joint venture was formed, that it expected to cut 10% to 15% of its workforce of 60,000 over four years.

Nokia Siemens this month announced the final number to workers and their representatives in Finland and Germany, where the parent companies are based.

Some of the jobs will be shifted to business partners, the company said in a statement.

Nokia Siemens said that it expects to cut costs by €1.5 billion ($2 billion U.S.) per year by the end of 2010 as a result of the layoffs. The company said the cuts were made because its service provider customers face intense competition and pricing pressures.

Finland and Germany will remain major centers of employment for Nokia Siemens, the company said, noting that more than 60% of its employees work outside of those countries.

■ STEPHEN LAWSON, IDG NEWS SERVICE

Berlin Rejects Call For Open Source

BERLIN

AT A HEARING earlier this month, the Berlin city government rejected a call by the Green Party to migrate computers in the German capital to free open-source software.

"The city leaders really don't get it," said Olaf Reimann, who is responsible for IT issues in the Berlio wing of the environmentalist political party. "With open source, the city could save money, reduce its dependency on Microsoft and even create jobs for small and medium-size IT companies in the region."

Reimann noted that a party-funded study on the use of open-source software in Berlin's public sector concluded that the city could.reduce IT costs by more thao 50% if it migrated to open-source software.

The study also points to the economic benefits of not being tied into Microsoft's licensing policies and software upgrade strategy, he said

Berlin, which runs nearly 60,000 computers, spends about €250 million ($340 million U.S.) annually on IT, the study said.

At the hearing, city officials reiterated their preference for using a mix of open-source and proprietary software products for economic and performance reasons.

■ JOHN BLAU, IDG NEWS SERVICE

GLOBAL FACT

Projected size of market in China for fleet management systems in 2007

Ericsson, Sun to Build Mobile Java Apps

SAN FRANCISCO

LM ERICSSON Telephone Co. and Suo Microsystems Inc. have agreed to jointly help the open-source community develop Java-based server applications that can ruo on wireless networks.

The two companies announced the agreement at the JavaOne 2007 conference here last week.

Under the agreement, Sun and Stockholm-based Ericsson will contribute to the GlassFish open-source community, which was formed to develop Java Enterprise Edition-based server applications, said Rich Green, Sun's senior vice president for software.

The agreement extends GlassFish's focus to mobile networks, Green said.

Ericsson has agreed to contribute pieces of its server software to GlassFish, in addition to tools and expertise to support developers. Ericsson may also allow developers to test their applications on live IP Multimedia Subsystem (IMS) networks.

Martin Harriman, vice president of marketing and business development for the multimedia business at Ericsson, said the company could not develop new IMS services on its own. "This is a big step for us," he said. "We've never worked like this before."

■ ROBERT MULLINS, IDG NEWS SERVICE

Australian Trade Office Rolls Out IP Network

SYDNEY

AUSTRALIA'S DEPARTMENT of Foreign Affairs and Trade has started rolling out a $7 million (U.S.) IP telephony network that will include several new features.

Integ Communications, a Sydney-based unit of the Ux Consulting Company LLC in Roswell, Ga., was awarded the contract to install the system.

Integ CEO Ian Poole said the network will support desktop integration, collaboration and mobility for department offices throughout Australia. The goal, he said, is to improve productivity and cut support costs.

Once the Australiao rollout is completed, Poole said, the network will be extended to the department's worldwide offices.

The system includes OmniPCX Enterprise voice systems and OmniTouch Unified Communications applications from Alcatel-Lucent, Poole said.

The network will include softphones, multimedia unified messaging, single-number/multiple-device support, audio- and videoconferencing, and presence management capabilities.

■ SANDRA ROSSI, COMPUTERWORLD AUSTRALIA

Sun's Grid Service Is Going Global

SANTA CLARA, CALIF.

SUN MICROSYSTEMS is expanding its Network.com utility computing service from the U.S. to 23 countries, the company announced this month.

The Network.com service, which calls for customers to pay an hourly rate for access to a Sun data center, began as a U.S.-only pilot in March and is now ready for expansion, said Rohit Valia, group product manager for the Sun Grid Compute Utility.

Sun charges $1 (U.S.) per CPU per hour to access a network of Sun x64 systems running Solaris 10.

Sun said the utility offering is now available io Australia, Austria, Belgium, Canada, China, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, India, Ireland, Italy, Japao, New Zealand, Poland, Portugal, Singapore, Spain, Sweden and the U.K.

The service is for companies that have short-term needs for extra computing capacity but don't want to expand their data centers, Valia said. With Network.com, users only have to build out their own capacity for an average level of usage, not occasional peaks, he said.

■ ROBERT MULLINS, IDG NEWS SERVICE

Compiled by Mike Bucken.

Briefly Noted

India's finance minister, P. Chidambaram, has approved Vodafone Group PLC's plan to acquire a majority stake in Indian mobile services operator Hutchison Essar Ltd. for $11.1 billion (U.S.). Newbury, England-based Vodafone's plan was cleared a week earlier by India's Foreign Investment Promotion Board. The approval had been delayed to let the board determine whether the deal violated Indian rules limiting foreign equity in telecommunications companies to 74%.

■ JOHN RIBEIRO, IDG NEWS SERVICE

As part of an effort to expand its presence in Australia, HCL Technologies Ltd. has opened an office in Canberra. The Noida, India-based IT services company said the new office will enable it to beef up its business process outsourcing and remote infrastructure management services.

■ SANDRA ROSSI, COMPUTERWORLD AUSTRALIA

Toshiba Software Development (Vietnam) Co. plans to open a development center in Hanoi next month. The facility will make embedded software for consumer electronics products. It will initially employ about 20 people, and its workforce is expected to grow to about 300 during the next three years, according to the company's parent firm, Tokyo-based Toshiba Corp.

■ MARTYN WILLIAMS, IDG NEWS SERVICE

Sun Microsystems has filed a new version of its antitrust lawsuit against Hynix Semiconductor Inc., accusing the Ichon, South Korea-based company of inflating prices for the dynamic RAM chips used in Sun's servers and storage systems. A similar lawsuit was dismissed in April by a U.S. federal judge, who asked Sun to provide more evidence of DRAM market patterns.

■ BEN AMES, IDG NEWS SERVICE

KAZ Group Pty., the Sydney-based IT services arm of Telstra Corp., announced that it plans to lay off 200 workers. A spokesman for Melbourne, Australia-based Telstra said the staff cuts are part of a realignment plan announced last November that included investments in simpler IT systems and a reduction of duplication within the business.

■ ROB IRWIN, COMPUTERWORLD AUSTRALIA

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Expert: Leadership Beats PR in a Crisis

BY THOMAS HOFFMAN

When corporate executives are faced with a crisis — such as a product recall or executive scandal — the typical knee-jerk reaction is to send up the white flag. But that strategy doesn't stand up well when managers have to fend off bloodthirsty competitors or a panic-stricken public, according to **Eric Dezenhall**, *a crisis management expert and co-author of a new book,* Damage Control: Why Everything You Know About Crisis Management Is Wrong *(Portfolio, 2007). In an interview with* Computerworld, *Dezenhall talked about how IT managers and corporate executives should handle such situations.*

How can a bank best address the public turmoil that comes when computers are hacked and financial data on thousands of customers is exposed? First thing, remember [that] the name of the game is damage control, not damage disappearance. You don't reverse them; you lessen their impact. We have had situations like that, and you have to quantify the problem. It has to be made clear quickly what the extent of the damage is. People want to know, "Am I going to be OK?" and "What are you doing about it?" Those are the twin goals with something like that. Some organizations go on to explain process, and that is absolutely worthless to the public.

Should this be handled any differently if, say, a hacker gained access to the patient records of a health care organization? I think the same principle applies. Financial information and health information are about as personal as it gets. You're dealing with people who are so furious that they're not interested in being dealt with logically. They want to be reassured that the situation is under control and won't happen again. Explaining how something got breached is like the plumber explaining how the sink was clogged when you just want it to work.

One situation I'm finding that's increasingly causing crises in IT is how many things are retained in e-mail. This is epidemic. The only people who understand not to save [some] kinds of e-mails are people who are either too old that they don't use e-mail or others who have spent hundreds of thousands of dollars in litigation because of this.

How can companies better handle high-profile disruptions from dysfunctional ERP systems, such as those at Hershey Foods, Whirlpool and Nike? We did have one situation in that category, and the answer is kind of corny. A lot of it came down to charm offensive. A lot of times when you're dealing with operational infrastructure problems, the remedy is interpersonal — a real offensive with offended parties, showing them what's been done to correct the problem and conveying a personal commitment to making sure it doesn't happen again. You mobilize your team on a personal basis to assuage offended parties.

What are some organizations that have handled damage control well, and what makes them stand out? I think a lot of it comes down to very strong leadership. Given the choice between a great crisis management plan and great leadership, always go with great leadership. I think the JetBlue example was very good.

What did JetBlue CEO David Neeleman do right? He did something tangible. He didn't just apologize [for flight cancellations]; there was some sort of reimbursement program. They formed a passenger bill of rights. It was a very specific portfolio of actions. Next, he wasn't just visible — he was strong. What we want to see in a leader is someone who is competent in a situation. I don't think a groveling CEO is necessarily what you want to see. When the whole spying scandal came up at HP, it wasn't that [CEO] Mark Hurd was just apologetic; he was strong. He said, "This is a very strong company; we're going to pull out of it," and they did just that.

What are some other overlooked or underserved aspects of crisis management? Conventional crisis management tends to view crises as organic, and what we believe is that most conflicts are communications issues. The way that you deal with the problem is different than the way you'd deal with the problem with a motivated party that's trying to exploit your weakness. People need to think about the nature of adversarial behavior more than they do. ▶

IRS Looks to Collect Customer Data From Internet Firms

Provision in 2008 White House budget proposal would affect auction sites

BY JAIKUMAR VIJAYAN

A Washington-based advocacy group has warned Internet auction businesses of a plan by the federal government that would require them to collect and maintain personal data from customers and share it with the Internal Revenue Service.

The Center for Democracy and Technology (CDT) suggested that such a requirement may force companies of all sizes to collect — and keep secure — massive amounts of personal data.

The proposal in President George W. Bush's 2008 budget plan is part of a U.S. Department of the Treasury effort to track down unreported small-business income generated by the sale of personal property on such auction sites.

If enacted, the plan would require what it refers to as online "brokers" to file income statements for all customers that conduct 100 or more separate transactions that generate $5,000 or more annually, according to Treasury Department documents.

The brokers would have to collect customer names, addresses, and taxpayer identification numbers or Social Security numbers starting on Jan. 1, 2008, the department said.

The biggest concern is that such legislation could require different commercial entities on the Web to maintain a vast collection of Social Security numbers and other personal data, said Ari Schwartz, deputy director of the CDT, a nonprofit think tank.

Schwartz noted that while "the IRS is going after smaller businesses that cheat on their taxes," the proposal could also affect millions of other people who use auction sites to sell personal property.

He said that the CDT anticipates that most online sites will have to collect personal data from all of their customers to ensure compliance with the regulations. Brokers would be liable under the proposal and would therefore likely seek tax-related information upfront from anyone planning to do business on their sites, he noted.

A large number of those buying and selling products online are individuals and small businesses unlikely to have taxpayer identification numbers, so they would have to provide Social Security numbers, Schwartz said.

"Such data retention proposals would force the creation of massive, privately maintained databases of personally identifiable data that government investigators could tap at their leisure," the CDT said in a statement.

Collection, maintenance and security of the data could prove burdensome and costly for small and large businesses alike, Schwartz added.

The proposal is only the latest example of the federal government's efforts to force businesses to store large amounts of customer data, Schwartz noted, adding that such mandates are coming at the same time security analysts are advising businesses to reduce the amount of personal data they collect.

The CDT also noted that such requirements may make consumers wary that even legitimate sites may be "related to illegal phishing scams."

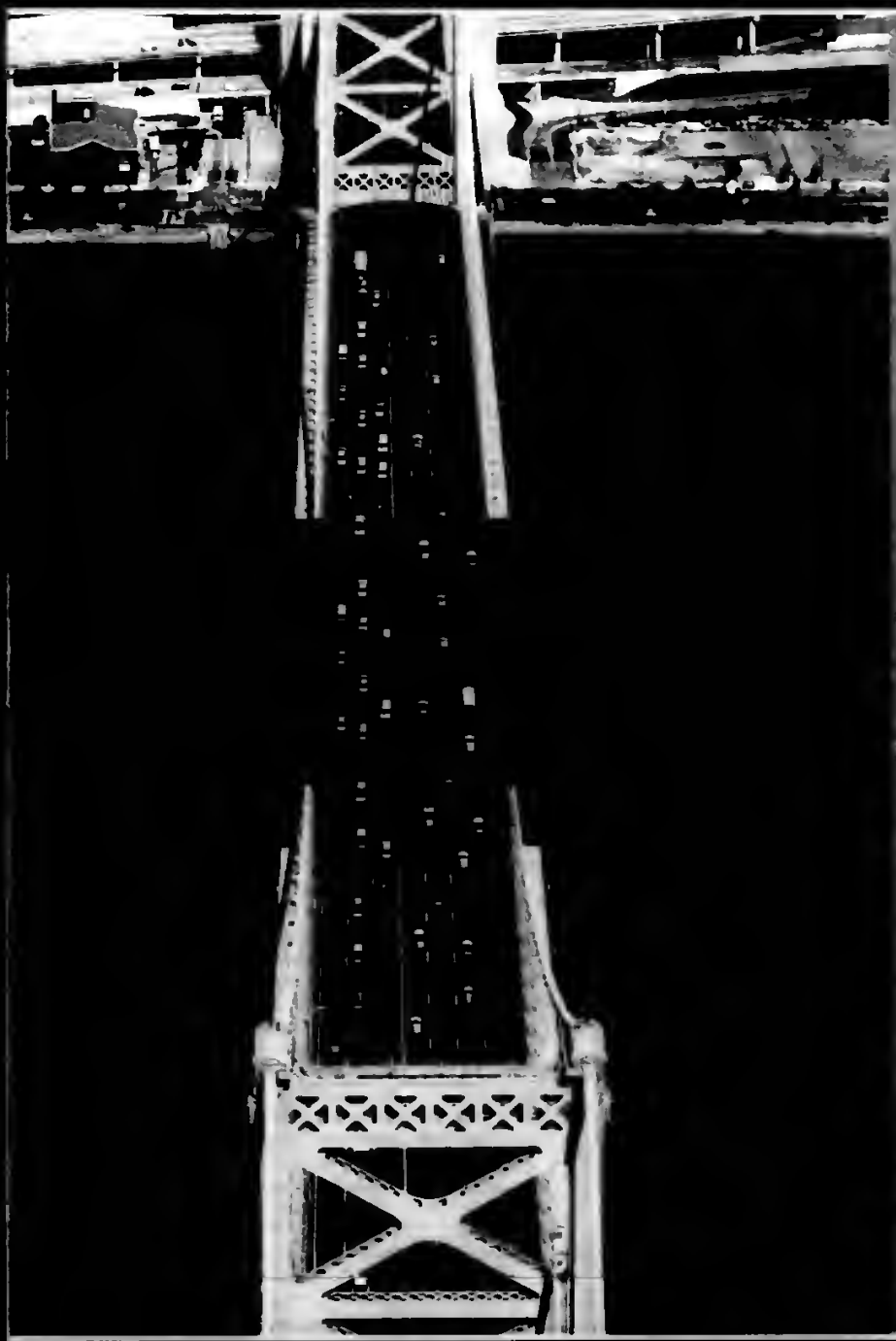
A report from the Small Business/Self-Employed Sub-

Such data retention proposals would force the creation of massive, privately maintained databases of personally identifiable data that government investigators could tap at their leisure.

group of the IRS Information Reporting Program Advisory Committee recommended the proposal, saying it is necessary because of the "explosive" growth of the Internet.

"One of the more popular business opportunities is the selling of new and used items through online auction sites such as eBay and Ubid.com," the report noted. ▶

HOW TO EXPECT THE UNEXPECTED



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DON TENNANT

A Question for You

I'VE ALWAYS FELT pretty strongly that if you have a question about something, you should ask it. Too often, we hesitate to ask questions. Often it's because we're concerned that the question will make us look stupid. At times, especially in a work environment, it's because we fear perceived political repercussions. Whatever the reason, it's seldom a good one.

I have a question for IT professionals, and I know no better way to get a response than to pose it here: How much credence do you place in white papers that are written by independent research firms like *Computerworld*'s sister company, IDC, when those white papers are sponsored by the very companies whose products or services are being evaluated?

The question should not be construed as a suggestion of impropriety. I have absolutely no reason to believe, certainly in IDC's case, that there's any funny business going on with these white papers. In fact, I have every reason to believe just the opposite. Our colleagues at IDC are among the most outstanding analysts in the business, and they have earned the respected position they enjoy in the global IT community.

The fact is, when you read one of these white papers, you find that IDC is very much upfront about who's sponsoring it. A recent example is a March 2007 white paper titled *Russia as Offshore Software Development Location: Should You Consider This Your Next Move?* Displayed prominently just below the title is the annotation "Sponsored by: RUSSOFT."

The white paper makes it clear, moreover, that RUSSOFT is a St. Petersburg, Russia-based association of software development companies from Russia, Belarus and Ukraine, with over 80 member companies employing more than 7,000 programmers and software engineers. That's important to know when you read the conclusion IDC drew:

"While India is still considered the leading [offshore outsourcing] location, other countries, such as Russia, should also be considered. Our findings indicate Russia's software engineering industry has matured from its nascent stage and, in many respects, deserves a prominent place on the offshore map. In particular, Russia could take the lead for outsourced development of high-end and complex projects."

Another example is IDC's April 2007 white paper *Achieving Business Value and Gaining ROI With CA's EITM Software for Optimizing IT Infrastructures*. As you might have guessed, this one was sponsored by CA, as IDC clearly noted just below the title. Again, IDC's conclusion should be weighed accordingly:

"Based on the results from in-depth surveys of 12 companies, the use of CA EITM software has resulted in average total benefits of $85,333 per 100 users on a normalized basis. The payback period averaged a short 8.6 months, and the ROI averaged 398%. These results clearly demonstrate the direct benefits realized by the CA Capability Solutions in five functional areas, based on the responses provided by users interviewed for this study."

Let me reiterate that there's no fine print here. IDC is making it very clear what you're getting and is leaving it up to you to decide what it's worth. That, indeed, is my question. What are these white papers worth to you? There's no doubt that readers find value in white papers prepared by the vendors themselves, because many are downloaded from our Web site every day. Is it in that context that these vendor-sponsored IDC white papers are read, or do they carry some premium of neutrality in spite of the vendor sponsorship?

There. I asked. With your help, I'll get my answer.

Don Tennant

MICHAEL H. HUGOS

IT and the Responsive Economy

THE EMERGENCE of the Internet and the Web have led to disruptive changes in companies' IT infrastructures. Ready or not, it's happening again. But this time, the changes will be bigger and they will come faster. IT departments will have to be more responsive because, at root, that's what these changes are all about.

Four technologies — server virtualization, grid computing, service-oriented architecture and software as a service — are facilitating these changes. But the real driver of the changes is this one central reality: In the high-change global economy we now live in, companies are finding it more profitable to be responsive than to be efficient.

Efficiency was the driver of the industrial economy. Slower and more predictable than the global, information-dependent one of today, that economy endured for decades. To prevail in that older economy, companies had to take time to organize themselves as models of efficiency so they could deliver their products at the lowest cost. Once they had done that, they ran their operations without further change for years and reaped the benefits. The assembly line, cranking out mass-produced goods with economies of scale, was the embodiment of that efficiency.

Today, the economy is much less predictable, and rigid concepts of efficiency no longer work, because conditions change so fast. What was most efficient last week suddenly isn't most efficient this week. Successful companies are learning to compete by being more agile and more responsive to continuous change and to the evolving needs of their customers.

Consider this: People want a good price, but that doesn't mean they

want the lowest price. A basic pair of sneakers costs $20 or less, but people spend five times that amount for sneakers that fulfill something beyond their basic needs. A superefficient shoe company can make sneakers cheaply and sell them profitably for less than the cost of a month of dial-up service. But much larger profits are available to the company that is merely efficient enough and instead turns its attention to being highly responsive to consumers' evolving demands for athletic shoes that go beyond the basics.

Here's what this will mean for IT in the next few years. Companies need IT infrastructures that will accommodate continuous, incremental change in their operations. To that end, they will use server virtualization and service-oriented architecture to leverage their existing IT investments and get the flexibility and responsiveness they want.

Companies will then move on from server virtualization to outsourced grid computing and from service-oriented architecture to outsourced software as a service, as hardware and software vendors become utilities that offer reliable computing power and basic applications like e-mail, ERP and CRM. They will be able to offer their services at a much lower cost than what most companies would spend to do it in-house. Companies will outsource more and more of their basic IT operations so that they can remain efficient enough in their operating costs. What they keep internally will be the ability to be responsive.

The IT groups that remain within companies will change their focus from data center operations to the design, construction and constant adjustment of systems that meet ever-changing business conditions. The value of IT groups within most companies will no longer be measured by how well they operate information technology but by how well they combine technology with business processes to create a stream of responsive and profitable products and services for their companies' customers.

MICHAEL GARTENBERG

IT Takes On Fashion

FASHION AND STYLE became components of technology a few years ago, and IT is still struggling to deal with the implications.

It's been nearly 10 years since Apple came out with the colorful iMac, which torpedoed the uniformity of the beige-box PC. Like the iPod, another Apple product that has exemplified the entrance of fashion into the world of technology, the iMac wasn't something that corporations were likely to supply their employees with. But employees were likely to buy them and, in the case of the iPod, bring them into the workplace. The introduction of an iPod, or a cool-looking flash drive on a key chain, to a corporate network carried at least potential security risks. Like it or not, technology as fashion became an IT issue.

Today, Apple isn't alone in touting form as well as functionality when talking about its products. Nokia, Research In Motion and Motorola have all put more emphasis on their devices' finish, the user interface and the high-end accessories that are available. All of these companies make devices, primarily smart phones, that many a user feels an urge to acquire. That urge is based not on compatibility with corporate systems but on desirability — the coolness and caressability factors. But the next big test for IT will probably come once again from Apple, which will roll out the iPhone next month. It's the most highly anticipated device since Alexander Graham Bell introduced his phone, and IT departments need to be prepared.

The iPhone is casting a large shadow even before it launches. At the CTIA wireless industry trade show, the buzz centered on it, even though Apple wasn't participating and only a single iPhone was in sight.

It seems certain that a lot of users are going to buy iPhones this summer, and they are going to want to use them for work. But it's not clear just how extensible the iPhone will be to third parties, including IT departments with line-of-business applications. Apple has not yet said how it will support Microsoft Office attachments or the use of Exchange to sync calendars or contacts. From IT's perspective, the iPhone may not qualify as an enterprise device. The hard reality is that systems that flaunt fashion over function are often not tested or certified for enterprise use. But at the end of the day, users are going to expect IT to solve these problems and take on the burden of support. And when those users include the CEO, IT's defense of its policies can quickly be questioned and often overwhelmed.

What, then, should IT's approach be? It can't try to hold back the tide. Fashionable technology is here to stay. Users are demonstrating a preference for cutting-edge form that matches devices' cutting-edge functions. Smart IT departments will not deny all requests for support of nonapproved technology. They will work hard to determine which devices can be supported, and they will find a way to give users what they desire. They will do all this because they know that they'll inevitably end up providing support and integration anyway. Since the smart IT departments know that the outcome will be the same regardless of whether they say yes or no, they realize that it's better to maintain control and access by saying yes.

As for me, I'll be waiting in line for a nice new iPhone. I can't wait to see how it plays with our Exchange server.

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READERS' LETTERS

Y2k: Finest Hour Or Biggest Hoax?

THANK YOU for the editorial defending Y2k as IT's finest hour, rather than a hoax ["IT's Finest Hour," April 9]. I have more than a bit of ego tied up in this topic, since I'm the one who (accidentally) coined the term Y2K. A few people know it was a big deal that we avoided disaster via lots of dull, hard work. Most people simply titter and laugh, since, not knowing any better, they seemed to expect disaster.

David Eddy
Principal, David Eddy & Associates Inc., Babson Park, Mass., deddy@davideddy.com

MANY ASPECTS of Y2k were indeed overhyped, and embedded chips were the source of much of the scare. They supposedly had been counting time since their manufacture and would fail unpredictably at the millennium. Everything, from the power grid to water supplies to microwave ovens, would stop working. And they were the perfect fuel for the hype – pervasive and impossible to check. Concerns about these chips led people to buy power generators and stock up on bottled water. Many people who should have known better were swept up in this hysteria. For example, our auditors required us to go through the ridiculous effort of certifying that all our printers would still function after Y2k.

The reality is we were never at risk for a massive failure as the clocks rolled over to the year 2000. It doesn't surprise me that nothing happened at the HACTL control center. The real Y2k problems were not those that would show up at midnight of the big day. They were primarily in business and financial systems. For example, our programmers had to modify our mortgage applications to ensure that interest calculations were correct, but the work was relatively routine: Expand the data field and search the code for all occurrences. As in any effort, a few lines of code were missed, and we were still cleaning up issues months later, but no catastrophe occurred. To claim that an army of programmers came to the rescue of the world's computer systems and prevented a meltdown substantially overstates the case. The best evidence for this is the lack of almost any reported failures. We in IT are just not good enough to catch every potential problem in advance.

R. Kurt Huddleston
President, Inland Computer Services Inc., Oak Brook, Ill.

I AVOIDED GETTING caught up in most of the Y2k hype. I was contacted weekly for two years by consultants who were looking to sell me their services. They were satisfied when I told them we had a Y2k plan in place. What I didn't tell them was that my Y2k plan was to do nothing.

I'm sorry Don Tennant spent his New Year's Eve waiting for a transistor, which is only capable of measuring relative time, to self-destruct.

George Black
Vice president, AdvanTel Inc., San Jose, gblack@advantel.com

COMPUTERWORLD welcomes comments from its readers. Letters will be edited for brevity and clarity. They should be addressed to Jamie Eckle, letters editor, Computerworld, PO Box 9171, 1 Speen Street, Framingham, Mass. 01701. Fax (508) 879-4843. E-mail: letters@computerworld.com. Include an address and phone number for immediate verification.

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Inside

Worldwide Wireless. How multinational IT execs manage their global wireless deployments.

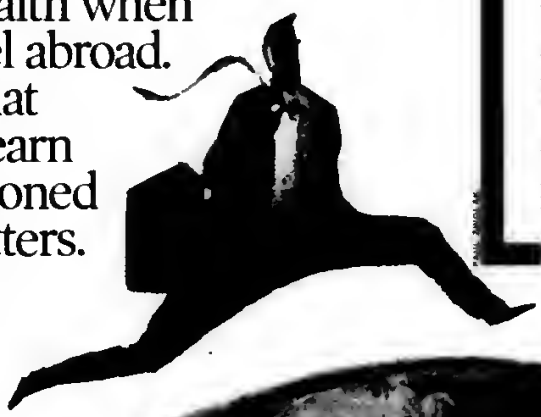
Fast & Furious. What does your wireless future hold? Blistering speeds and more-sophisticated networks. PAGE 44

Opinion: Mark Hall PAGE

Global Mobile

SPECIAL REPORT

U.S. wireless users are taking a leap of faith when they travel abroad. Here's what you can learn from seasoned globe-trotters.



EDITOR'S NOTE

AS ANY American who has tried to plug in a hair dryer at an overseas hotel knows, what works here doesn't always work there. Multiply that frustration by a factor of, say, 100, and you begin to understand the vexation of IT execs working to bridge the global mobile divide.

This discontinuity has a bit of history. Writer Joanie Wexler explains in "International Disconnect" (page 32) that U.S. mobile network providers decided about a decade ago to follow two distinct wireless protocol paths: Some went with Global System for Mobile Communications, which most of the rest of the world adopted, and others went with Code Division Multiple Access. Subscribers to CDMA-based U.S. services who travel abroad know how much trouble that protocol split has caused.

The interoperability jumble has also caused the U.S. to fall behind in the adoption of certain wireless technologies. Take, for example, Short Messaging Service, or texting. Europeans have had interoperable SMS for about 15 years; the U.S. has had it for only about four years. Or look at smart phone use. The Japanese have been using i-Mode smart phones to book train tickets and bank online since 1999; in the U.S., the i-Mode-like Wireless Application Protocol has been a bit of a dud.

Global business travelers and multinational firms are the ones left to sort it all out. As Stacy Collett reports in "Wireless World" (page 40), companies like Stiefel Laboratories, which operates in 30 countries, work hard to make the best of wireless diversity. Pat Smith Fernandez, Stiefel's corporate vice president, global IT/MIS operations, negotiates separate wireless agreements on different continents and makes case-by-case decisions on whether to adopt the array of added wireless services offered by carriers in every country.

Is there a unified global wireless landscape on the horizon? In "Fast & Furious" (page 44), David Haskin writes that in a few years, just about everyone everywhere will have access to ultrafast wireless broadband. Worldwide wireless services of the future promise speed, but whether they will ever get in sync is anyone's guess.

Ellen Fanning is special reports editor at Computerworld. *Contact her at ellen_fanning@computerworld.com.*

International Disconnect

Long-fragmented U.S. wireless networks have created a chasm in the global business network.

By Joanie Wexler

THERE'S LITTLE ARGUMENT that the worldwide mobile business environment is fragmented. And the U.S. is largely culpable for that.

The U.S. trails Europe and Asia in network and device interoperability, mainly because U.S. mobile network operators have long used different network protocols and varying generations of cellular technologies. As a result, devices that work on one kind of cellular network don't work on another. They also don't function on networks that use the same technology but are run by different operators. For reasons such as those, U.S. smart-phone sales lag behind those in Asia and Europe (see chart).

That's the sour story in the U.S. In Europe and most of Asia, the situation is sweeter: Devices and services interoperate fairly consistently on networks based on the Global System for Mobile Communications (GSM) standard, and carriers provide mix-and-match capabilities. While all three continents are near parity in the availability of handsets and content services, the protocol inconsistencies hit business users hardest when they travel from the U.S. to Europe or Asia or vice versa.

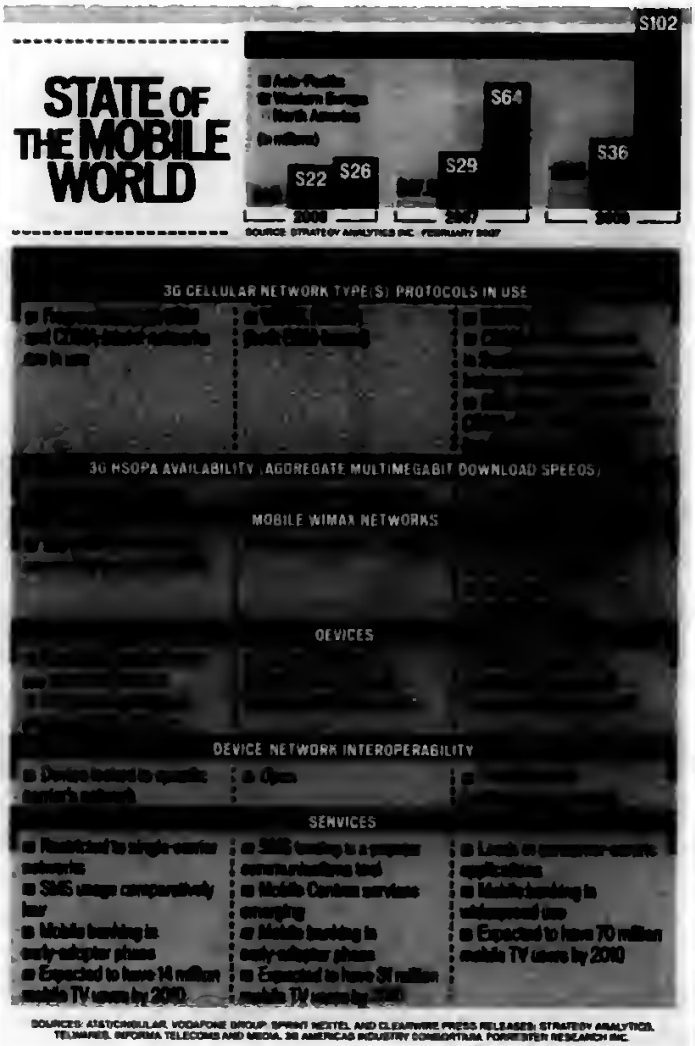
Users are in pretty good shape if they travel within a single country or, say, within the European Union. In Europe, the interoperability among different operators' networks "provides us the benefit of good coverage," says Jane Kimberlin, IT director at Domino's Pizza Group Ltd. in Milton-Keynes, England.

But the U.S. chose in the early 1990s to follow two distinct wireless protocol paths — Code Division Multiple Access (CDMA) and GSM — and the nation's largest providers joined one technology camp or the other. GSM was adopted throughout most of the rest of the world, so users of CDMA-based U.S. services (offered by Sprint Nextel Corp. and Verizon Wireless) are often out of luck when they travel to other countries.

"We have worldwide clients, producers and agents, but there are no [handheld] devices we can give them that work all over globe," says Farzad Golshani, vice president of IT at Transamerica Corp. in Los Angeles. "Our biggest issue is the lack of compatibility between network protocols and devices."

As a result, Golshani says, most of Transamerica's business travelers use laptop PCs to connect to the corporate virtual private network via land lines.

Voice is less problematic: IT departments can buy their traveling users quad-band GSM phones that work in the U.S. and nearly everywhere else in the world. However, CDMA users will have to rent a phone when they go to an Asian or European country that supports only GSM.



>>> Differing SMS Cultures

Short Messaging Service (SMS) texting is one service whose usage is geographically out of sync; it is far more prevalent in Europe and Asia than it is in the U.S. For example, Domino's is poised to roll out a service that will enable customers in the U.K. to text pizza orders from mobile phones. But the company isn't trying that yet in the States.

"SMS seems to be only just starting to take off in the U.S. It is not a regular part of everyday life in the same way that it is in Europe," Kimberlin observes.

That's true in part because interoperable SMS services, which allow text messages to be sent between users of different operators' networks, have been available in the U.S. for only three or four years. Prior to that, only people who subscribed to the same operator's service could text one another.

Europe, however, has had interoperable SMS for about 15 years, so texting has penetrated the culture, according to David Kerr, an analyst at Strategy Analytics Inc. in Boston. "SMS is the dominant way of communicating for the sales force in Europe," he says. "You report to your line manager or vice president of sales after a meeting using text. In the U.S., you make a phone call."

Strategy Analytics pegs worldwide SMS revenue for 2006 at $53 billion, which is more than 10 times the $4 billion in U.S. SMS revenue last year.

Continued on page 36

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2. Find a weapon, any weapon.
There's no doubt Ninjas are deadly. In an office setting, however, their Ninja skills are at a disadvantage. Use what's at hand to take them by surprise. Hot coffee flung at a Ninja will get his attention. Or simply dump your wastebasket on his head—both disabling and humiliating.

3. Use your whiteboard as a shield.
Ninjas love throwing stars, known as *shuriken*. They are sharp, and pointy and when thrown they stick in deep and hurt a lot. Grab the nearest whiteboard and use it as a shield when the *shuriken* throwing begins. Yes, it'll ruin the whiteboard, but you can explain later.

4. Use your phone (to call for help).
Ninjas are tough—deadly actually—and no one will judge if, at a point when all hope seems lost, you call for help. Calling in reinforcements from branch offices, even the warehouse crew, can make the difference when Ninjas attack.

5. Use office plants as weapons.
Those dusty-looking palms around your office may look harmless, but you can wield them as formidable weapons. The fronds can be used as pokers, aim for the Ninja's sensitive spots. Cacti are particularly useful for the Ninja-besieged enterprise. Throw them, pot and all, like grenades.

6. Attack Ninja with a stapler.
Ninjas, like most of us, hate being stapled. It hurts bad, and can daze you a little. Keep a well-oiled stapler in every office (two in conference rooms). Very few Ninjas, no matter how tough, can handle multiple bites from a well-swung Swingline.

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Our biggest issue is the lack of compatibility between network protocols and devices.

FARZAD GOLSHANI, VICE PRESIDENT OF IT, TRANSAMERICA CORP

Continued from page 32

Another reason why texting is more popular in the rest of the world than it is in the U.S. is because development of international cellular packet-switched data networks lagged behind development of such networks in the U.S. So SMS, which uses the network-signaling channel of cellular voice networks, became a default, pseudo-data-networking service that worked everywhere voice networks reached in Europe and Asia.

>>> Network Mismatches And 'Walled Gardens'

While Western Europe and Asia have boasted higher-speed mobile networks, the U.S. is beginning to catch up with pockets of multimegabit-speed GSM-based High-Speed Downlink Packet Access services, notes Kerr. HSDPA network services are available in 165 U.S. cities from AT&T Inc./Cingular Wireless LLC, as well as in 41 European countries and nine Asia-Pacific nations.

Still, in North America, mobile operators more tightly control how subscribers use their networks. They often turn off phone features that might be used to circumvent the use of cellular minutes. Each carrier also has terms and conditions regarding the type of traffic it will permit on its 3G data networks.

The closed-network approach of U.S. operators is commonly referred to as the "walled garden" problem, because users are restricted to the confines of their operators' networks.

For example, a brouhaha erupted in April when AT&T/Cingular and Sprint Nextel began blocking voice phone calls to free conference call numbers in rural areas that carry high call-

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Europe's Mobile Advances

From **mobile VoIP** to **cell phone TV**, Europeans are pushing **wireless features** and **functionality.**

SMART PHONE VOIP

If, until now, most smart-phone users have associated mobile Internet with writing e-mail, surfing the Web or sending pictures, they could easily get hooked on cheap voice-over-IP calls.

Several European groups are currently testing new mobile VoIP services that could radically change how cell phone customers make calls in the future. Skype Technologies SA and mobile phone operator Hutchison 3 Group are in the starting blocks to launch a commercial mobile VoIP service. Hutchison will provide Skype's mobile VoIP client in a range of high-end smart phones that have Session Initiation Protocol capability and run the Microsoft Windows Mobile operating system.

Jajah Inc., founded by an Austrian named Daniel Mattes, has launched a mobile VoIP service that lets smart-phone users make low-cost and, in some cases, free international calls. To make calls, users simply enter Jajah's mobile Web portal through their handset's browser and enter their usernames and passwords.

Fring, the brainchild of Israeli entrepreneur Avi Shechter, is another peer-to-peer VoIP service that carries calls over cell phone networks in much the same way PC-based Internet telephony services transport conversations over Wi-Fi or fixed-line broadband connections. But unlike Jajah, Fring requires users to download a VoIP application to their handsets. And currently only Nokia's Series 60 3rd Edition phones support the service.

Fring looks and feels a lot like other PC-based applications, such as Skype, Google Talk and MSN Messenger, which offer integrated VoIP, instant messaging and real-time presence services; Fring even connects with those services. Users can fill their contacts list with other Fring users or friends who use the other services, see when they're online and communicate directly with them.

While all of these services show that mobile VoIP technology works, quality is still an issue. Low uplink speeds over the airwave link can result in latency, among other problems. But higher speeds are on the way. Operators of GSM networks are upgrading their mobile broadband networks with high-speed uplink packet access technology to achieve the bidirectional capability they need to run real VoIP.

MOBILE TELEVISION

Just when you thought your mobile phone had all the features you could handle – telephony, messaging, gaming, music and photography – another's on the way: TV.

Mobile phone manufacturers and network operators in Europe are tuning in to mobile TV big time. Two types of mobile TV service are competing for prime time. One streams video data over mobile phone networks; the other broadcasts video signals directly to mobile phones equipped with special antennas.

The broadcast service is attracting the most attention, largely because it offers one-to-many capability, whereas the streamed service offers one-to-one capability.

Broadcast mobile TV in Europe debuted at last year's World Cup soccer tournament in Germany, where people were able to test the service in and around the stadiums.

The service is already commercially available in South Korea, where millions of commuters chat, play games, listen to music and now watch TV on their mobile phones.

But the commercial rollout of broadcast mobile TV services in Europe has been held up by a battle for supremacy among three standards: Digital Multimedia Broadcasting (DMB), which in being pushed by South Korean manufacturers; MediaFlow, which was developed by Qualcomm Inc.; and the DVB-H (Digital Video Broadcasting-Handheld) standard, which was approved by the European Telecommunications Standards Institute and is backed by some of the world's largest handset makers, including Motorola Inc., NEC Corp., Nokia, Siemens AG and Sony Ericsson Mobile Communications AB.

Viviane Reding, commissioner of the European Union's Information Society and Media directorate general, has given the industry until this summer to agree on a standard, and she has made it clear that she prefers DVB-H. That deadline would give handset manufacturers and operators sufficient time to launch products and services ahead of the European Soccer Championship and the Olympic Games in China next year.

Italy has offered commercial broadcast mobile TV services based on DVB-H for more than a year. Analysts say the service is compelling because it provides many more channels than DMB and offers high-quality resolution and audio.

–JOHN BLAU, SENIOR EDITOR, EUROPE, IDG NEWS SERVICE

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> **There is definitely more of a Net neutrality type of mobile mind-set in Europe than there is in the U.S.**
>
> CLIFF RASKIND, ANALYST, STRATEGY ANALYTICS

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completion fees that the cellular carriers must pay. Some subscribers have terminated their contracts, claiming that there was no mention in their terms and conditions of the carrier being able to selectively block phone calls to legitimate public telephone numbers. Meanwhile, AT&T/Cingular has gone so far as to sue a series of small independent telecommunications firms.

"There is definitely more of a Net neutrality type of mobile mind-set to Europe than there is in the U.S.," says Cliff Raskind, another Strategy Analytics analyst. "U.S. workers pay about $70 per month for 'unlimited' data usage, for example, but there are a number of things they can't do with the devices," which are supplied and subsidized by their carriers.

>>> Device (In)Flexibility

Some U.S. operators, for instance, block Bluetooth access connections to PCs and printers. Most also prohibit certain types of traffic, such as voice-over-IP (VoIP) and multiuser traffic aggregated by cellular routers, from running on their 3G data networks.

"I think a fair assessment would be that U.S. consumers are faced with a competitive choice of walled gardens," says Michael Voellinger, an enterprise mobility consultant at Telwares Communications LLC in Pleasanton, Calif. The closed networks prevent subscribers from using features that would compete for cellular airtime minutes.

For example, the E61 that Nokia offers in Europe is a dual-mode cellular/Wi-Fi device. However, its U.S. counterpart, the E62, is missing the Wi-Fi link. Like Bluetooth and VoIP, Wi-Fi is a potential alternative to cellular usage, Voellinger notes.

"I'm willing to pay full freight to purchase unsubsidized, unlocked phones so my users can go anywhere. But my carrier won't let me," says Art King, the global network architect of a leading worldwide consumer products company that he asked not be named. Unsubsidized phones cost about $600 to $1,000 depending on the model, according to Strategy Analytics.

GLOBAL SOURCING & PRICING STRATEGIES

Creating an executable global mobile strategy and avoiding fragmentation is "not an easy thing to do," says Michael Voellinger, a consultant at Telwares Communications. Still, he has advice for U.S. companies doing business abroad that are looking to solidify their strategy and cut costs.

- **Leverage any in-country presence your company has when negotiating with carriers. Provisioning a lot of in-country subscriber identity modules – smart cards used in mobile phones – to give users local service when they hit the ground can offset your voice and data costs by 10% to 40%, says Voellinger.**
- **Attempt to devise a strategy that is repeatable across the organization, rather than making a regional effort. "Ask yourself if you are a GSM shop, a CDMA shop, a BlackBerry shop," and try to build one global profile as consistently as possible, Voellinger says.**
- **Balance the economics of whether you should source for the masses of users who generally don't travel internationally, or for the exceptional users who do. Consider a company with 10,000 users, 700 of whom travel overseas more than twice a year. The question is whether it is more economical to satisfy the 10,000 or the 700.**

"Let's say the price leader responding to your RFP turns out to be a CDMA carrier," Voellinger says. "While that is not going to work very well for the 700 employees who travel overseas, suppose you could save 11% on your U.S. total bill compared to the best GSM bid. You must determine if that differential is justifiable enough to go with CDMA and handle the 700 travelers as an exception."

– JOANIE WEXLER

Problems with lack of interoperability among devices aren't limited to the U.S. Many global users must rent or change out their devices when moving from region to region. They also pay premium per-minute or per-megabyte charges when they roam off their in-country flat-fee or pooled-minutes plans. King says the situation is improving, since South Korea and Japan recently adopted HSDPA technology and plan to discard their CDMA-based networks.

>>> Development Pickle

Then there are platform development considerations. Asia in general and Japan specifically are very handheld-centric. "Japan loves little devices and doesn't want to tote laptops, because users take public transportation a lot," says Kerr.

The Japanese have been able to use smart phones to access the Web since 1999, when NTT DoCoMo Inc. launched i-Mode service and associated phones. NTT DoCoMo's two primary in-country competitors in the mobile market quickly followed suit with similar services, and there are more than 80 million subscribers to such services in Japan today.

Some reports say that about one-third of the Japanese population uses i-Mode 10 or more times a day to book train tickets, conduct online banking, find restaurants, check the weather and download ring tones. The three Japanese carriers also formed alliances with mobile operators in 15 European, Middle Eastern and Asian countries enabling the i-Mode services to be used across borders.

> **I think a fair assessment would be that U.S. consumers are faced with a competitive choice of walled gardens.**
>
> MICHAEL VOELLINGER, CONSULTANT, TELWARES COMMUNICATIONS LLC

In contrast, the U.S. put its money on the Wireless Access Protocol (WAP), an i-Mode-like technology intended to provide WAP-enabled phones with access to WAP-enabled Web sites. WAP has largely been unsuccessful in the U.S. because it initially required complex development and its promise of an Internet-like experience over tiny devices didn't meet U.S. user expectations. I-Mode fared better because its underlying technology was more like HTML and "Japanese users are more forgiving about network issues than U.S. users," says Kerr.

U.S.-based businesses are also more inclined to use laptops and tablet PCs because the applications developed for them tend to remain in use for a while.

"The enterprise development cycle is 12 to 18 months, and we tend to write our interfaces around the device display," notes King. "Handhelds change so fast that [once internal development is complete], the device/display won't be available any longer."

A reason for this is that the operating system licensing agreements for handhelds differ from those of traditional PCs. In the handheld world, the license exists between the mobile operating system developer and the device maker, rather than between the operating system vendor and the end customer.

"So when there is an OS upgrade, I have to upgrade to a new device," King says. But in the case of laptops and tablets, he says, "I hold all the licensing agreements," which allows his company to extend the life of its devices.

>>> Service Trends

Strategy Analytics says that the U.S. trails its international counterparts in deploying wireless business services.

For example, Mobile Centrex is catching on in Sweden, where TeliaSonera AB offers services that extend wired Centrex dialing plans to GSM users. Centrex has been around for decades and is usually used by smaller companies. A telephone switching service hosted in a carrier's network, it gives businesses an alternative to buying, managing and maintaining their own telephone switches or private branch exchanges.

Sweden's mobile version of Centrex service is reportedly being used by companies of varying sizes, largely because it enables a phone number to be used both with land-line and GSM mobile phones; it's an early form of fixed-mobile convergence, or FMC.

The service outpaces U.S. offerings. "I've been asking for mobile GSM Centrex for years," says King. He says he wants his numbers to be in a closed user group, with six-digit dialing around the world and with his company in charge of the dialing plan. "Cingular says this is about three years away" in the U.S., King notes.

What will ultimately unify the world's mobile networks, devices and services?

Transamerica's Golshani says it will take mergers to get carriers on a universal protocol — which could be mobile WiMax, a competitor to 3G cellular that is still in its infancy. "That could someday be the protocol we would use to connect everyone together if it becomes pervasive," he says.

Voellinger says companies should stay focused on FMC cross-network application services and protocols. "You'll see some enterprises take the leap" with FMC equipment that has recently become available, he says. "Then the service providers will react."

FMC, he concludes, "will provide a Darwinian method of getting us to a unified marketplace." ●

Wexler is a freelance technology editor/writer based in California's Silicon Valley. Reach her at joanie@jwexler.com.

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ANDREW HOPF/SILVER IMAGE

Worldwide Wireless

Multinational IT execs admit that global wireless deployments can be a technology jumble. But where there's a will, there's a way. **By Stacy Collett**

AT STIEFEL Laboratories Inc., a select group of senior managers from around the globe meets four times a year to discuss wireless IT initiatives being considered. Whether it's providing BlackBerry devices to the sales force or equipping warehouse workers with a new wireless handheld device that tracks shipments and communicates with the ERP system, "projects like that would come to the governance committee," says Pat Smith Fernandez, corporate vice president, global IT/MIS operations at the skin care pharmaceutical company in Coral Gables, Fla.

But with 35 wholly owned subsidiaries in 30 countries, standardizing on wireless devices, platforms and service plans is anything but easy. "There are competing [wireless protocols] on a global scale," Smith says.

While today's third-generation, or 3G, wireless technology has given users high-speed voice, data and video capabilities on a variety of devices, as well as roaming capabilities throughout Europe, Japan and North America, the adoption of wireless technology varies worldwide. Systems, pricing and preferred devices differ from country to country — and more changes loom on the horizon. Wireless developers are already hyping mobile WiMax 802.16 technology, which is expected to support the use of multimedia applications over wireless connections.

> **"Twenty years ago in IT, the enterprises and governments tended to lead. [With wireless technology] consumers are leading the front edge.**
>
> WILLIAM CLARK, ANALYST, GARTNER INC.

The consumerization of IT complicates the global landscape even further. "Twenty years ago in IT, the enterprises and governments tended to lead. [With wireless technology], consumers are leading the front edge. They're pushing the envelope harder than IT," explains Gartner Inc. analyst William Clark.

So, can a company standardize wireless around the globe? The answer is no, at least not now, according to Clark.

Multinationals will need to support wireless diversity for at least five to seven more years, he says. "There is no one platform" for wireless technology, says Clark. Trying to guess which wireless technology will dominate and then moving exclusively to that technology now would be a bad idea, he adds.

Although it costs nearly 10 times more to manage wireless services and devices than it does to manage wireline devices, according to Aberdeen Group Inc., it won't pay to wait for one specific standard to emerge.

What companies can do is choose the best wireless technologies by region and business unit, and achieve maximum return on investment for those purchases now.

>>> Start with business units or locations to mitigate risk.

For multinationals, there are big stakes involved with deploying wireless quickly. A wireless project that suffers a six-to-12-month delay "misses a big

Continued on page 42

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Continued from page 40

chunk on your return-on-investment window," Clark says.

To speed deployments, one big trend among multinational companies is staging wireless deployments by region or business unit. "It mitigates some of that risk," Clark adds.

At Accenture Ltd.'s 200 offices in 49 countries, employees are migrating toward Bluetooth technology for short-range wireless, Wi-Fi for all laptops to connect to the firm's new voice and data network on an Multiprotocol Label Switching backbone, and Research In Motion Ltd. (RIM) and Microsoft Mobile technology to support various cellular standards worldwide.

But each business unit decides which technology to deploy. "We don't say, 'Everyone at Accenture is going to get this [device].' " explains CIO Frank Modruson. "We say, 'Here is the menu of products and services. How do you want to equip your people? What capabilities do you want to offer them?' "

Modruson knows it's important to support multiple wireless technologies. For instance, Accenture supports only RIM and Microsoft Mobile technology for global cellular service and puts fewer restrictions on the device or carrier.

"The software was the key differentiator for us," he says. "I don't really care about the model device somebody equips themselves with, because those churn pretty frequently — but the software doesn't."

Offices outside North America might also have wireless device preferences based on the location's level of adoption or the pricing plans available. In Europe and Asia, for instance, carriers don't offer unlimited data plans. Instead, users pay for every message unit, and text messaging costs less than e-mail messaging. So while BlackBerry devices have become ubiquitous among U.S. executives, in Europe, they are much less common because users have to pay per message. "It's just the way the carriers price," Smith says. For this reason, she negotiated separate

"We don't say, 'Everyone at Accenture is going to get this [device].' We say, 'Here is the menu of products and services. How do you want to equip your people? What capabilities do you want to offer them?'

FRANK MODRUSON, CIO, ACCENTURE LTD

"Obviously, it makes it easier if you don't have to support [so many devices], but we have a lot of young, bright people in the organization who are gravitating toward newer technologies, and we want that culture.

DAVID GUTHRIE, EXECUTIVE VICE PRESIDENT AND CTO, PREMIERE GLOBAL SERVICES INC.

agreements for Stiefel on different continents — starting with Sprint Nextel Corp. in South America and Cingular Wireless LLC in North America.

As part of each country's pricing plan, Smith also considers the added services carriers offer. In Asia, for instance, customers can pay for tolls, parking or even newspapers through their cell phones.

"We adapt by having policies on what can be expensed back through cell phones in different markets. If it would make my sales rep more productive on the road by doing that, then we would [allow it]," Smith says.

>>> Embrace emerging wireless devices.

Premiere Global Services Inc. has learned to deal with wireless diversity. The Atlanta-based on-demand software company coordinates wireless policies for its 2,200 employees in 18 countries. Last year, Premiere standardized its workforce on BlackBerries, using BlackBerry Enterprise Server software to deliver applications to the devices. But a smattering of employees around the world preferred Microsoft Windows Mobile 5 smartphones and Palm OS devices.

David Guthrie, executive vice president and chief technology officer at Premiere, says he could have "put the clamps down" and refused to support the devices, but instead he made sure that the company's e-mail exchange services were compatible with them. He developed specific applications for those devices that would enable them to print to a nearby printer or fax and instantly enter conference calls.

Although wireless diversity causes more work for IT, Guthrie sees it as a good thing — within reason. "Obviously, it makes it easier if you don't have to support [so many devices], but we have a lot of young, bright people in the organization who are gravitating toward newer technologies, and we want that culture," Guthrie says. "We have to control as much as possible but at the same time not stifle the organization."

Employees' wireless preferences also reflect the preferences of the company's customer base, he adds. "So in some ways, it just helps push us a little earlier than we would have otherwise," Guthrie says. However, he warns, "You have to be careful with standardization. You can stifle a lot of creativity within your organization, and a lot of productivity and efficiency."

>>> Use multichannel access gateways or wireless application gateways.

Companies whose employees worldwide need to wirelessly reach back-end systems such as Oracle or SAP are moving toward multichannel access gateways or wireless application gateways. The gateways provide a buffer between the wireless devices and the back end, so users can swap out and migrate to the wireless technology. IT can alter the applications infrastructure without affecting end users.

New technologies are also emerging that let companies roll out applications to many types of wireless devices simultaneously. For instance, Volantis Systems Ltd. in Seattle offers a thin-client application server that lets companies project over a portal both consumer- and enterprise-based applications to 3,000 different devices.

"The big guys, like SAP and Oracle, are innovating [similar technology], but they just can't keep up" with specialty firms like Volantis, Clark says.

>>> Deploy GPRS cards for globe-trotters.

There are some wireless technologies that are globally compatible but often expensive. Globe-trotting executives at Stiefel Laboratories use Global Packet Radio Service (GPRS) cards in their laptops. The PC card allows a notebook or BlackBerry to connect to the Internet across a cellular network and provides an 802.11b adapter in the same card. When users are in range of a public or private hot spot, they can connect at up to 11Mbit/sec. In the field, wireless connections can be made using GPRS or a slower Global System for Mobile Communications dial-up link.

"It works pretty seamlessly" from country to country, Smith says. "But it can get fairly pricey." The GPRS card costs about $60, plus $70 per month for unlimited data use within the U.S. International use costs about $140 a month. For Smith, using her BlackBerry is a different story. "When I travel overseas, I pay roaming charges, and my bill could be $500 to $700 a month," she notes.

Looking ahead, Apple Inc.'s iPhone and the widening use of iPods for training will present new challenges for global IT departments, Smith says.

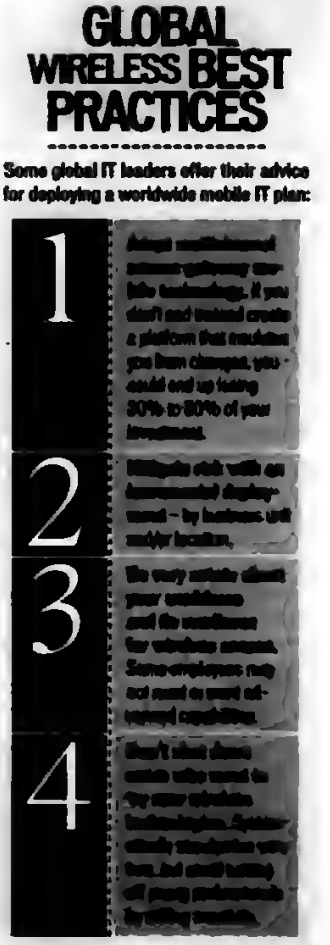
On the standards front, companies like Motorola Inc., Samsung Electronics Co. and Sprint Nextel are already holding out the promise of WiMax and mobile WiMax. But don't hold your breath, Gartner says.

"Our strategic planning assumption is — in a best-case scenario — that system would go into production in 2012 to 2015," Clark says. Contrary to what carriers would have consumers believe, "fourth-generation wireless is not around the corner — we're still trying to pay for and fully utilize 3G."

Collett is a Computerworld contributing writer. Contact her at stcollett@aol.com.

GLOBAL WIRELESS BEST PRACTICES

Some global IT leaders offer their advice for deploying a worldwide mobile IT plan:



– STACY COLLETT

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Fast & Furious

What does your wireless future hold? Blistering speeds and more-sophisticated networks, thanks to advances in mobile broadband. By David Haskin

PAUL TAYLOR

SCADS OF acronyms and technologies cloud the crystal ball used to predict the future of wireless broadband. But look closer, and two things become abundantly clear.

First, we're headed toward fast, ubiquitous access that will lead to a new mix of business and personal applications. Experts agree that before long, anything you can do at your desktop, you'll be able to do on the road with a laptop or other mobile device.

"The mobile application of the future is the Internet," says Mike Roberts, an analyst at research firm Informa Telecoms & Media in London. "Once you get to the kinds of speeds we'll be seeing, the application is whatever is successful over the Internet."

And second, that future starts now, say most experts. Later this year, we'll start seeing mobile speeds several times faster than third-generation (3G) cellular data speeds in the U.S. and Korea and, very possibly, other locales. From there, speeds will ramp up quickly — as will the number of places where these speeds are available. It shouldn't be more than a few years before you'll have access to ultrafast wireless broadband speeds, whether you're in Beijing or Boston.

Future generations of mobile broadband are likely to be based on a technology called OFDMA (orthogonal frequency division multiplexing access). This is a more efficient radio modulation method than OFDM (orthogonal frequency division multiplexing), which is already being deployed in increasingly common fixed WiMax networks.

At present, the most visible type of OFDMA network is mobile WiMax. A small network using this advanced technology is being rolled out in Korea (it's actually a close variant of mobile WiMax called WiBro). However, the biggest mobile WiMax build-out on the horizon is Sprint Nextel Corp.'s network in the U.S., which will initially be available late this year, the company says. Sprint says its network will offer typical download speeds ranging from 2Mbit/sec. to 4Mbit/sec. and will cost users less than its cellular Evolution-Data Optimized (EV-DO) network.

If you live in or visit Seoul, Chicago or Washington, the future of mobile wireless has already started — and you'll be able to use WiMax this year. Sprint promises that its network will

Continued on page 46

How do you turn three scanning shifts into two?

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Continued from page 44
be available to 100 million users in the U.S. by the end of 2008.

Beyond mobile WiMax, however, the migration from 3G to more sophisticated networks becomes complex. The migration path varies widely depending on the carrier, the country and a host of other considerations, such as the availability of radio spectrum. But experts agree that all paths lead to OFDMA. Here's how we'll get there.

>>> CDMA

The current state of the art for Code Division Multiple Access carriers is EV-DO Revision A, which provides roughly the same download speeds but faster upload speeds than the first generation of EV-DO. Most carriers that have already deployed EV-DO are now upgrading their systems to "Rev A." CDMA carriers are found throughout the world but are most common in the U.S., Latin America and parts of Asia.

The next upgrade may be EV-DO Revision B. This would increase speeds to theoretical maximums of about 73Mbit/sec. for downloads and 27Mbit/sec. for uploads. Roberts says this technology is actually ready but that carriers may skip this upgrade.

"If you talk with Qualcomm, which created Rev B, it's ready to go," Roberts says. "But I haven't heard of any operators deploying it." That's because carriers are busy upgrading to Rev A, and Rev B is considered merely a way station before the next big upgrade, called Ultramobile Broadband (UMB), which once was called Revision C. As a result, many believe that carriers will bypass Rev B and jump right to UMB, Roberts says, which will enable theoretical maximum download speeds of 280Mbit/sec.

Note that theoretical speeds are rarely reached. Real-world speeds depend on many factors, including how many people are using the network and how far each user is from a base station. Real-world speeds are typically a fraction — say, one-fourth or less — of theoretical speeds.

UMB "is still subject to debate," says Roberts. "UMB is pretty ambitious — it's the move to OFDMA, and it uses MIMO [multiple input, multiple output intelligent antenna technology]. Deployment could be in the 2009 to 2015 time frame. It's a matter of timing, and it looks, on paper anyway, that Rev B could be squeezed out."

> **"UMB is pretty ambitious – it's the move to OFDMA, and it uses MIMO. Deployment could be in the 2009 to 2015 time frame. It's a matter of timing, and it looks, on paper, anyway, that Rev B could be squeezed out.**
>
> MIKE ROBERTS, ANALYST, INFORMA TELECOMS & MEDIA

The stakes of migrating to UMB are high for carriers, Roberts says. For one thing, it is OFDMA technology, so it won't be backward-compatible with the various versions of EV-DO. And because it is new technology, it will require a much larger expenditure by the cellular service providers. Finally, it will require a lot of spectrum.

"This is a whole new ball game — it's a break point," Roberts says.

>>> GSM

Worldwide, there are many more Global System for Mobile Communications carriers than CDMA carriers. For instance, virtually all carriers in Western Europe use GSM technology. And these carriers and others worldwide are undergoing a similar transition to faster wireless using somewhat different technology. For these carriers, 3G started out with a technology called Universal Mobile Telecommunications System (UMTS), but most carriers have been upgrading to High-Speed Downlink Packet Access (HSDPA). Following that will be a transition to High-Speed Uplink Packet Access (HSUPA).

Just as UMB is the next major technology shift for CDMA carriers, the next leap for GSM carriers after HSUPA is Long-Term Evolution (LTE). The goal for this technology is 100Mbit/sec. download speeds and 50Mbit/sec. upload speeds.

LTE is nearer than you might think, but it faces some serious hurdles. Not the least of them is that LTE has not been standardized yet, although Roberts says that should occur in 2008, so deployment could start as early as 2009. He added, however, that that date might be too optimistic.

Also, like UMB, LTE is a major upgrade for cellular operators — "a forklift update," not an incremental one. However, one goal of LTE is to be backward-compatible with 3G networks, and it is expected to be an IP network.

>>> Mobile WiMax

The evolutionary paths of GSM and CDMA carriers are relatively simple to chart. But things get complex when you add mobile WiMax into the mix.

Mobile WiMax is something of a wild card because it's a new technology, not an evolution of an existing one as is the case with 3G. It also will be the first large-scale IP-based mobile network.

It's also a wild card because there must be enough wireless spectrum available before mobile WiMax can be deployed. And that depends on a variety of factors, such as how much spectrum remains available in any given country, how the spectrum is doled out by each government and how much spectrum the individual carriers already control. And these questions remain undecided in many parts of the world, including the European Union.

It's even a wild card in the U.S., where spectrum debates are more settled and only one carrier, Sprint, has enough spectrum to create a truly nationwide mobile WiMax network.

> **"Being cheaper [than 3G] is huge. Cheap is something IT guys have to go through to get that ERP or SFA application out there.**
>
> DEREK KERTON, PRINCIPAL, THE KERTON GROUP

The result, if WiMax technology's advocates are to be believed, will be faster service than 3G for less money. Plus, given the evolutionary path that the other cellular service providers in the U.S. must follow, it could be years before they can catch up to Sprint Nextel.

"If Sprint does it well, they'll have more than a two-year head start," says Derek Kerton, principal of The Kerton Group, a telecommunications consulting firm in San Jose. "Being cheaper [than 3G] is huge. Cheap is something IT guys have to go through to get that ERP or SFA [sales force automation] application out there. The second thing that's huge is that [IT personnel] will be able to go out and buy a laptop with WiMax embedded."

That's because Intel, a major backer of mobile WiMax, has promised to embed the technology in its laptop chip sets, just like it has embedded Wi-Fi into chip sets.

Kerton cautions, however, that mobile WiMax faces many hurdles, not the least of which is that it's an unproven technology. Specifically, questions remain about how the network will perform when it is fully loaded with users.

Skeptics, including Kerton, say they have a host of other technical concerns about WiMax. Sprint and Intel have repeatedly said those technical challenges will not be serious problems.

>>> UMTS TDD

There are a few additional wireless broadband technologies that could find a place in the mobile world. Perhaps the most notable one is UMTS TDD (Time Division Duplexing). Developed by a small company called IPWireless Inc. in San Bruno, Calif., it is actually an older wireless broadband technology.

"Three or four years ago, there were real [UMTS TDD] customers with cards in their laptops using it," Kerton says. "But it was a case of the tree that fell in the forest."

UTMS TDD offers roughly the same performance as mobile WiMax, and it's a proven technology, so why hasn't it been widely adopted? The big blow to this technology came with Sprint's decision to go with mobile WiMax after considering UMTS TDD for its U.S. network.

But that doesn't mean UMTS TDD is a goner. It's still scheduled to be deployed on a nationwide network in Japan.

In addition, the technology may have found a niche in Europe for mobile TV. Orange SA, a large international cellular carrier, is deploying UMTS TDD for that purpose.

>>> The Future

Whichever technologies eventually win out, several things appear certain. First, it won't be long before mobile network data speeds increase dramatically. That, in turn, will change the applications we use when we're mobile.

It is also certain that new technologies such as LTE, UMB and mobile WiMax aren't fourth-generation, which is expected to have 1Gbit/sec. speeds. However, the future of 4G remains murky.

"It's tough for us forecasting types to talk about 4G, because it's so far out [that] it's hard to predict," Roberts says. "LTE, UMB and the next flavor of WiMax are getting close to 4G, though, but it could be 2015 or 2020 before we see real 4G."

Haskin is a Computerworld.com contributing editor. He specializes in mobile and wireless technologies. Contact him at dhaskin@earthlink.net.

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In Stockholm, wireless technology helps blind people navigate independently. By Juris Kaza

Have Cell Phone, Will Travel

"What is good with this system is that I just enter the address, and I get guidance."

SOFIA THORESDOTTER, A TESTER OF THE PROJECT OF EASY ACCESS NAVIGATION SYSTEM FOR THE BLIND

ALTHOUGH SWEDEN'S reputation for extremely generous social welfare services is somewhat exaggerated, the country is at the forefront of using IT and telecommunications to help the elderly and disabled remain as autonomous as possible. This allows those in need to maintain their dignity and reduces expenditures for publicly financed social workers and personal assistants.

One of the most challenging projects has been an effort to develop a system for guiding the sight-impaired and blind with voice advisories from their mobile phones. The navigation system is the first high-tech, software-related project to be undertaken as part of the city of Stockholm's Project of Easy Access for the visually impaired, which has hitherto been a program of rebuilding sidewalk curbs, building wheelchair ramps and making other adjustments to Stockholm's physical infrastructure.

Swedish firm Mobile Sorcery AB is developing the software for the prototype system, which uses a Nokia 6300 Symbian phone with earphones and a separate GPS unit linked to the phone through Bluetooth SIG technology. The application linking a geographic information system (GIS) to the guidance system is provided by Astando AB, another Swedish company.

"We designed all the client software which resides on the phone, plus there is a standard voice synthesis solution from Acapela Group," says Tomas Uppgård, CEO of Mobile Sorcery. The complete system was tested by about a dozen sight-impaired and blind people in Sweden's capital in late 2006. The navigation application from Astando locates the user and plots a path to the destination using a highly detailed GIS created and maintained by the city mainly for street maintenance and traffic management purposes.

The voice guide then alerts the user to upcoming turns and obstacles through early warnings, rather than instructing every move. The voice alerts (in Swedish) include phrases like "left turn in 10 meters" or "low wall on the right."

"The metaphor is to give them a spoken map and enough detail to make their own decisions," says Uppgård. Users will also be able to enter their own data, such as noting that a parked vehicle is blocking a crosswalk, and other users will be alerted to it via an update of the GIS database. (Most blind people can find their own way around an unexpected but familiar object such as a parked car.)

The prototype for the system was completed last October, and user testing followed. Pernilla Johnni, a coordinator for the project, says the initial tests of the navigation systems were promising, "but there is a long way to go," especially in refining the accuracy of positioning for users with no other means of assistance, such as a service dog.

Uppgård agrees. "One of main the challenges is positioning," he says. "Standard GPS is not good enough, so we are evaluating other positioning technologies, including some rather accurate dead-reckoning software to account for the user's movements, and, eventually, the use of RFID and Bluetooth tags on certain objects and obstacles."

A new round of tests, in which users will be able to operate the system alone, will be conducted over the summer. Full deployment is expected by 2010. ▸

Kaza is an editor at the Latvian news agency LETA. Contact him at j_kaza@yahoo.com.

THE TESTER'S PERSPECTIVE

Sofia Thoresdotter, a music therapist who works in Stockholm, has very limited vision and has been assisted by a seeing-eye dog for the past six years. As one of the testers of the city's **Project of Easy Access** navigation system for the blind, she says the tool has great potential to give her a new level of freedom and mobility, particularly by allowing her to get around easily in unfamiliar areas.

"It worked very well," she says. "Now, if I have to go to an unknown address, I have to get a very precise description from someone else. Then I have to think through how to get there. What is good with this system is that I just enter the address, and I get guidance."

Thoresdotter also appreciates the system's ability to tell her exactly where she is at a given moment. But there are still problems to be solved, she says.

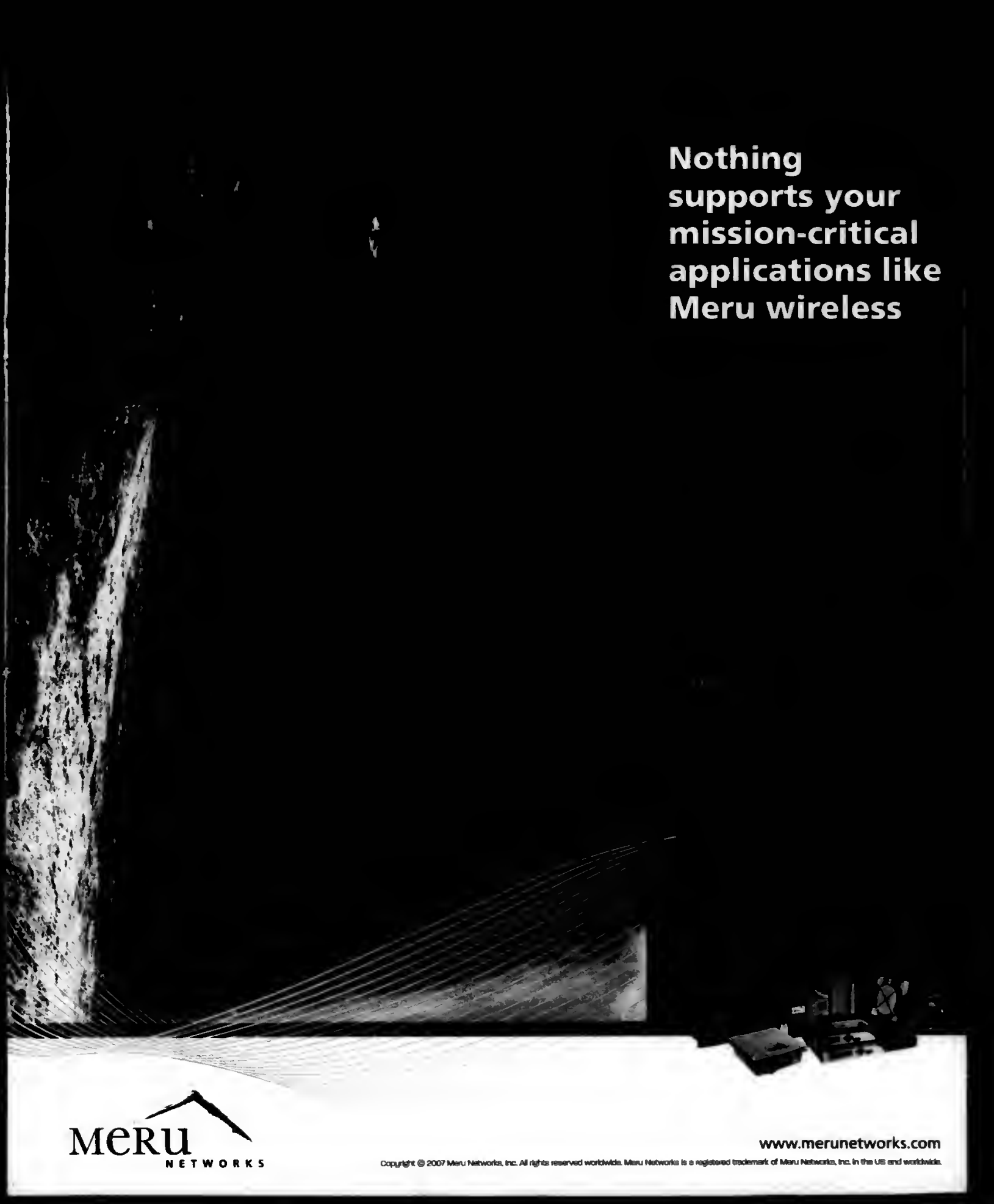
"There was one major disadvantage, which they are going to fix," she notes. "That is that it was very, very much too slow. I had to move very slowly so that it could keep up with me."

Since Thoresdotter relies on her hearing for cues about her immediate environment, she does not want the system chattering constantly about where she is or what to do next. She wants the final version to be one "where I can set levels of use, where I can ask it not only where I am, but also where is the nearest subway station," she says.

She also hopes that someday the system will function across Europe, "so that when I go to Nice, it can guide me around and back to my hotel."

Even if the system is perfected, Thoresdotter says she will keep her dog. "If I am in a park, the system will say that I are near a bench, and I will ask the dog to find it," she says. Together, "the dog and this system are unbeatable."

– JURIS KAZA



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Snapshots

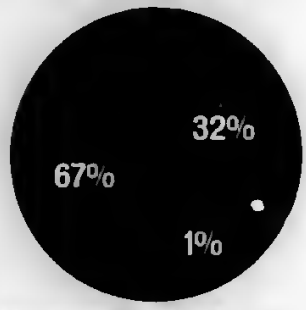
Italians Lead The Pack

Percentage of young people in European countries who reported sending an SMS message at least once per day:

SOURCE: FORRESTER RESEARCH INC. SURVEY OF 7,015 EUROPEAN CONSUMERS AGE 12 TO 24 WHO OWN MOBILE PHONES, FEBRUARY 2007

On Their Own

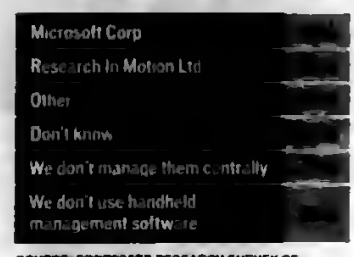
Does your company have a standard list of mobile devices from which employees can choose their cell phones, smart phones and other such devices?



SOURCE: FORRESTER RESEARCH SURVEY OF 918 MOBILITY DECISION MAKERS AT NORTH AMERICAN AND EUROPEAN COMPANIES, JANUARY 2007

Handheld Helpers

For managing your handhelds, which vendors' software will you consider most?



SOURCE: FORRESTER RESEARCH SURVEY OF 619 CLIENT MANAGEMENT DECISION MAKERS AT NORTH AMERICAN AND EUROPEAN COMPANIES JANUARY 2007. MULTIPLE RESPONSES ALLOWED

MARK HALL

Think Globally, Experiment Locally

OVER THE PAST 35 YEARS, my long-suffering wife has had to tolerate my many peculiar habits, not the least of which is my hatred for left-hand turns while driving. So when we were watching *ABC News* one evening last month and saw the story about how UPS drivers use a wireless location-based application to avoid left-hand turns and thus save gas, I felt vindicated. I might even have made some crack about my genius behind the wheel.

She responded, "Yeah, maybe, but you'd get into a lot of wrecks in England."

Besides making sure I don't get a big head, my wife had hit on something. No corporate wireless application should be deployed today without considering the ramifications for business across the globe. Given the worldwide distribution of manufacturing, engineering, software development, financial markets and even marketing, IT has to think beyond its own borders for just about everything. Executives who travel abroad for business can get significant productivity boosts if their mobile apps are able to join them on their nation-to-nation hops. And given the breadth of standards in the wireless industry, building applications that follow those standards globally makes it possible to deliver services to road warriors wherever they may be.

But IT shouldn't let the global aspirations of an organization slow down wireless mobile applications for specific regions. There's too much to be gained right now. In fact, while it's important to consider the global implications for wireless mobile apps, it's more critical that you act on them locally, because that's where the biggest benefits lie.

It turns out UPS doesn't use its right-turn-only wireless software in England — but not because it would be difficult to reprogram the software to make primarily left turns there, a spokeswoman told me. "It's volume-based," she said. If enough drivers needed to make lots of deliveries in a given territory, it would be worth UPS's investment to localize the software for that place — whether it's in the U.S. or abroad.

Nonetheless, by deploying the application only in high-volume delivery areas in the U.S., in 2006 UPS saved more than 3 million gallons of fuel. It was also able to keep 1,100 trucks off the road as a result of improved delivery times.

Tom Dillon understands why you shouldn't wait for a wireless mobile application to have a global use. He's senior vice president of solutions and services at Konica Minolta Business Solutions U.S.A. Inc. in Ramsey, N.J. That means he runs field service operations in the U.S. Dillon is part of a global organization that has field operations in dozens of countries.

Dillon wanted to equip his 1,400 mobile technicians with a real-time tool that could give his back-end systems data about the work the techs do to maintain Konica Minolta's multifunction printer devices on customer premises. The application, built on global standard bar-code tools and GPS technology, as well as carrier-agnostic communications software from AirClic Inc. in Newtown, Pa., has the potential to be successful on an international scale. But it's a winner today in the U.S.

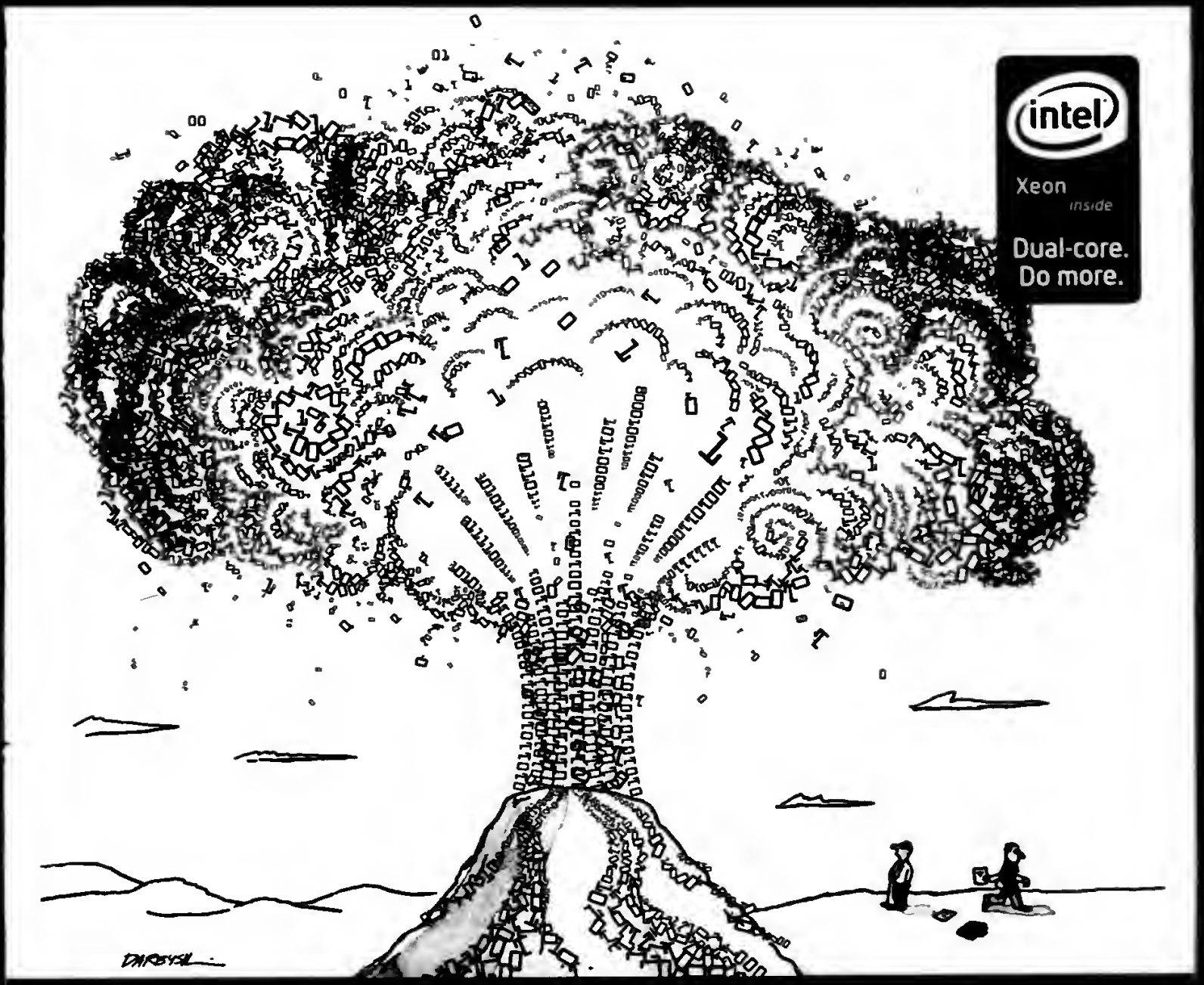
When a Konica Minolta tech shows up to service a customer's machine, he scans the device's bar code to verify he's at the correct one. Then, Dillon says, he "starts the clock on the labor activity in real time." The tech scans each part that's put into the machine, updating inventory levels in real time. When he's done, the mobile technician uses the AirClic tool to log out of the service call; the system then begins timing how long it takes him to get to the next stop.

The real-time data on service and travel times is vital, Dillon says. It helps Konica Minolta develop competitive and profitable pricing models for service agreements.

"It also dramatically improved the accuracy of our field parts inventory," Dillon adds. Each field tech has about $8,000 worth of parts in his vehicle, and Dillon estimates that the AirClic tool cut parts loss by $500,000 the first year.

Today, each Konica Minolta field technician establishes his own route for the day's scheduled calls based on his knowledge of the territory and customers. In the future, Dillon wants a dispatch system that is fully automated — one that knows the skills of each tech, as well as his location and availability and the service-level agreements of each customer. That way, the right person can automatically be dispatched to the right place at the right time.

Naturally, this future software will give directions with the best route to the customer site. But Dillon didn't say whether his ideal field workforce of the future will make any left-hand turns.



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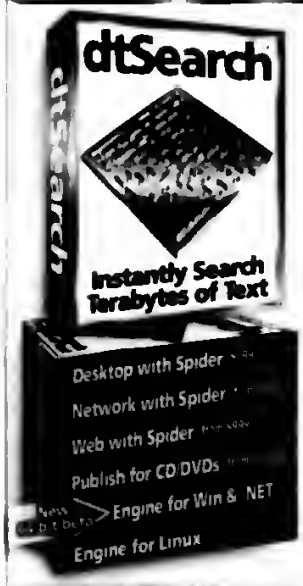

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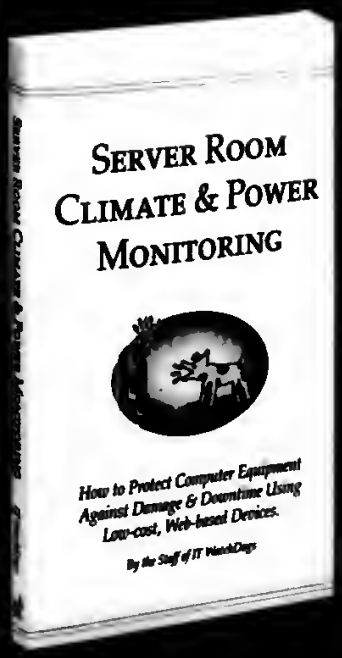

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- Positive impact on other business/organization units.
- Substantive customer impact (service, retention, acquisition).
- Provides a strategic advantage to the business/organization while anticipating and accommodating the deployment of future Mobile & Wireless initiatives.
- Financial return and measurable payback (returns on investment, assets, resources) through created/protected revenue opportunities or cost savings.
- Addresses challenges of data, information and application security

Offshoring Isn't Just About the Money, Survey Suggests

Execs say sending work overseas can improve operations — if it's done right

BY TODD R. WEISS

Projected cost savings are almost always the key draw when companies consider sending some of their IT and business operations offshore. But performance gains can be a benefit of sending work overseas as well — as long as they are planned for from the start and built into contracts.

That was the conclusion drawn by A.T. Kearney Inc. following a survey of executives and IT leaders at 42 Fortune 200 companies with offshoring experience. In a 19-page report released last week, the Chicago-based management consulting firm said the companies that showed the most improvement in both operational performance and cost savings focused on performance issues early in the offshoring process.

"The people who really concentrated on performance saved more money than companies that offshored and didn't stress and analyze performance," said Adam Dixon, a Kearney consultant and co-author of the study.

And, he said, the greatest gains were realized by companies that improved on three or more of the six operational process metrics considered in the survey. That runs counter to a belief held by many IT leaders who worry that sending some operations offshore will reduce the performance of their departments, Dixon noted.

Improvements Possible

Vijay Sonty, CIO for the public school system in Florida's Broward County, agreed that although cost savings are certainly one goal of offshore outsourcing, operational improvements are also possible, depending on the work that is being sent overseas.

"You can build in performance gains," Sonty said. "You have to do it upfront and bring in offshoring experts who understand your business."

Broward County Public Schools, which serves 270,000 students and has an annual budget of about $4.5 billion, is one year into a planned three-year implementation of a new SAP ERP system. The work is being done under a $30.5 million outsourcing contract with IBM; about 10% of the tasks have been sent to India, Sonty said.

He added that offshoring those functions — preparing data logistics reports, as well as reports for the school district's payroll, human resources and purchasing departments — did not affect the quality of the work or cause the district to lose control of the tasks.

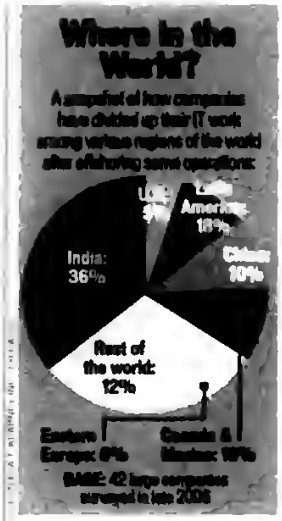
Kearney's online survey, which was conducted during last year's fourth quarter, asked respondents 50 questions about their offshoring experiences; the questions covered topics such as operational performance capacity and flexibility, revenue performance and process maturity.

Of the 42 respondents, 35 said they had completed their offshore implementations and had cut costs by an average of 49% while gaining some improvements in all six of the measured categories. Still, 60% of those companies reported that their performance gains weren't as high as expected, and 34% said they didn't meet their cost-savings goals, according to the study.

Kearney said that offshoring some medium-complexity work, such as IT and advanced business processes, improved operational performance more than sending low-complexity functions like call center operations overseas did. Offshoring the latter functions also saved less money — an average of 28%, compared with 38% for the more complex work, the firm said.

"Some companies can take advantage and grab an operation and move it offshore," said Adam Braunstein, an analyst at Robert Frances Group Inc. in Westport, Conn. "It's definitely doable, but the number of companies that can do it correctly is still in the nascent phase. It's difficult to get there."

Particularly in areas such as software development and maintenance, companies that succeed "are not giving up the entire kit and caboodle," Braunstein added. "What you'll find is that in order for things to move [offshore] effectively, nobody hands it all over. If you do that, you're in for a world of pain." ▸



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Visa Security

back of credit and debit cards.

Visa issued the letter to the "acquiring" financial institutions that grant merchants the approvals they need to accept individual card transactions. The missive urged acquirers to ensure that companies using the listed software upgrade to newer versions that comply with its security guidelines, or switch to different products.

Companies that continue to use the targeted applications are in violation of the Payment Card Industry Data Security Standard, Visa said in its letter. The PCI standard, which is backed by all of the major credit card companies, requires any entity that accepts card payments to adopt a set of 12 security controls. In turn, acquiring banks and other institutions are responsible for ensuring that merchants comply with PCI.

Avivah Litan, an analyst at Gartner Inc., said Visa's letter shines a spotlight on "a big weak point" in the PCI process: the lack of standards that software vendors must follow.

Although efforts are under way to make Visa's so-called Payment Application Best Practices part of the PCI mandates, complying with the PABP guidelines is still voluntary, Litan said. But security breaches such as the one that The TJX Companies Inc. disclosed this year emphasize the growing need for software vendors "to be held to the same standards as the retailers are under PCI," she added.

'Significant Threat'

PCI requires merchants to ensure that their payment systems don't capture prohibited data but do support functions such as transaction logging and data encryption, said Chris Noell, CEO of TruComply, an Austin-based consulting firm that focuses on the payment card industry.

"But there is no obligation for a payment application vendor to produce PCI-compliant software," Noell said. With its letter, he added, Visa is essentially putting retailers that have installed the listed applications "on notice that the software they're using is not compliant, and thus the merchant is not compliant."

So far, Visa hasn't publicly identified the vendors whose products are on its list of applications that don't comply with the PABP guidelines. But it informed each of the vendors before the April letter was sent to the acquiring banks, according to Eduardo Perez, Visa's vice president of payment system risk.

"Most, if not all, of the vendors listed provide either a patch or an upgrade that will ensure that their applications do not store prohibited data," Perez said via e-mail. "So, hopefully their merchant customers will take the appropriate actions."

This is the first time Visa has sent out a list of software that it wants businesses to avoid. Perez described the storage of prohibited data as "one of the most significant threats to payment system security." He added that merchants have been "targeted by data thieves because they were storing sensitive payment card data and weren't even aware that their systems were storing it."

Visa hopes distributing a list of applications that fail to meet the PABP recommendations will push more vendors to adopt the guidelines, Perez said. As of last week, Visa had certified 155 payment and point-of-sale applications from 83 vendors as complying with its suggested best practices. "Many of these vendors view PABP as a competitive differentiator," Perez wrote.

Visa first published a list of noncompliant software in a member bulletin dated Feb. 27 and then put the list in the letters that were sent to the acquiring institutions. The company plans to update the list periodically, Perez said. ▸

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BI Panel

to Microsoft BI tools several years ago when its stock price stumbled. The tools helped the company make better decisions, which in turn helped boost its stock price to the $100-per-share level today, he said.

"My passion for this process grew from that," Benz said. "We in IT have a very important role in terms of getting information in front of [users] so they can make better decisions."

But Benz also acknowledged that IT employees must work hard even today to convince users of BI's benefits. Some users still "don't realize the power" of BI technology, he said.

Strategic BI Plan

Chris Festog, CIO at Virginia Farm Bureau Mutual Insurance Co. in Richmond, Va., said he was hired about two years ago to help turn around an IT department "that had not performed for years."

The insurer had already made several unsuccessful attempts to replace legacy systems, Festog said. "We had people who weren't performing. We didn't have change management," he noted.

Festog said that he developed a strategic plan that leaned heavily on BI technologies to provide users with "better, more timely and quality information for making better decisions." He also assigned 10% of his staff to focus on BI projects.

Festog noted that despite the increasing investment in BI projects, some users continue to resist the effort.

"I am a change agent in an organization that still isn't sure it wants to change," he said. "My organization actually doesn't want information; they want to manage the organization anecdotally. When we come with data, they don't like us."

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> CHRIS FESTOG, VIRGINIA FARM BUREAU MUTUAL

However, he said that as IT shows users how the tools can make their jobs easier, many start asking for the ability to get more data.

Stephen Wetzel, chief technology officer for Maricopa County, Ariz., said that when he unexpectedly arrived at a county call center earlier this month, he found employees eagerly discussing BI metrics related to the handling of citizens' calls.

He said discussions about BI would likely have been far less enthusiastic shortly after the county began implementing the technology in 1998.

While some users — especially managers — embraced BI tools, others came on board only when the county began "holding them accountable through the fiscal process" by threatening to cut funding if they didn't use standardized BI tools, he noted.

Despite having encountered resistance from users, all of the panelists said that they chose not to compile formal estimates of returns on investment before embarking on BI projects.

"You could quantify it; we didn't," said Festog. "I see BI as a fundamental tool for the leadership of the organization. If we can teach these guys how to use the tools, the return is exponential."

"It is as simple as, good decisions are better than bad decisions," said Benz. "You start with that premise and scale your effort. At some point in time, it becomes a little like e-mail. Did you do an ROI when you put in e-mail?"

Because Maricopa County has had to increase spending to meet law enforcement and health care mandates without increasing taxes, "we had to look at the value proposition of making better decisions" and therefore didn't do a formal ROI study, said Wetzel.

Benz had one last piece of advice for companies attempting to use BI to help improve decision-making: Don't wait for unanimous user support. Many data warehouse projects have failed, he noted, because IT waited until it gathered all of the required data.

"If that means that we stumble along the way and are embarrassed, then so be it," Benz added. "I worry about us screwing it up technologically, but what I worry about more is business performance." ◆

New SQL Server Used New Development Process

SEATTLE

AT THE FIRST Microsoft Business Intelligence Conference, held here last week, the company announced the target ship date and new details for the follow-on to SQL Server 2005. In an interview with *Computerworld* at the conference, Ted [illegible], corporate vice president of Microsoft's data and storage platform division, said the new version, code-named Katmai, will include support for unstructured data and offer new management features and improved scalability.

Can you be more specific about the release date for Katmai? In terms of the when, we're really happy with SQL Server 2005 and how it is doing for customers. The other thing we have heard from customers is that five years was a bit too long [to develop SQL Server 2005]. We made a decision to have releases of SQL Server on 24-to-36-month intervals. [Katmai] will ship in calendar year 2008.

What are the primary new features to Katmai? One of the big investments we are making is in the declarative management framework. The notion is being able to manage and verify by intent. [For example], my data is configured in a way that is compliant with the policies I want to enforce.

We also are adding [support for developers] to raise data up to business terms. I have some data in relational tables that represents a customer object or product object. I can make that available in business terms.

In Katmai, we have a big set of investments around data warehouse scalability. [SQL Server 2005 showed] we're no longer just the data mart around the data warehouse. We are performing in those high-scale, mission-critical data warehouse deployments today. We are making a big investment to increase scale in storage, in the engine and the query processors.

Will Katmai's support for unstructured data help companies grapple with the longtime problem of accessing and analyzing things like call center notes and field technicians' summaries? You need to be able to deal with that unstructured data as part of your applications. A great example would be in the medical industry, where you want to attach imaging data to patient records. When I are slicing and dicing my business data, I also need to be able to access and view attributes that are unstructured. That is absolutely a part of this.

Microsoft has said that it overhauled the entire engineering process of its platform division in part because of long SQL Server 2005 delays. Is Katmai being developed using that new process, and what were the significant changes? The team coming off of SQL Server 2005 did take an end-to-end look at our engineering processes. One of the goals was around delivering more regular releases and engineering ourselves to deliver on these releases frequently. It is important for us to make a division between the things we want to ship in the next release and also invest in things for the longer term.

Along the way, we will make sure we are delivering things on this regular 24-to-36-month cadence and being conscious about where we are doing things for the longer term versus those for the next release cycle.

Is it true that there will be no beta releases of Katmai, only Community Technology Previews? Yes. CTP was very successful for us in terms of releasing SQL Server 2005, and we will be using regular and frequent CTPs.

Will Katmai be as significant as the SQL Server 2005 release? Customers will tell us and will decide the kind of release this was for SQL Server. We have a lot of functionality coming in this release. We're going to be moving the bar significantly in all these areas.

– HEATHER HAVENSTEIN

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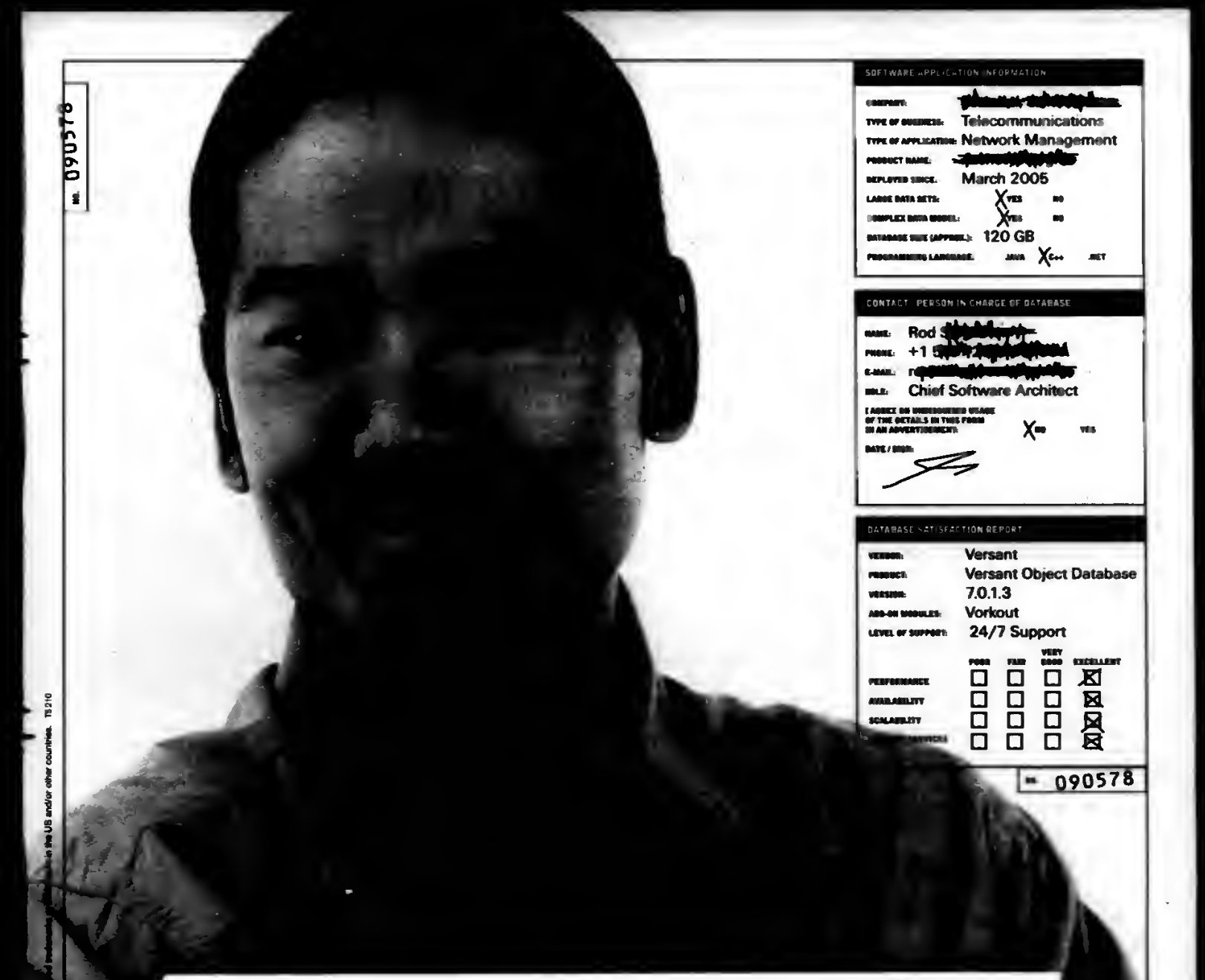


SOFTWARE APPLICATION INFORMATION

COMPANY: [redacted]
TYPE OF BUSINESS: Telecommunications
TYPE OF APPLICATION: Network Management
PRODUCT NAME: [redacted]
DEPLOYED SINCE: March 2005
LARGE DATA SETS: X YES NO
COMPLEX DATA MODEL: X YES NO
DATABASE SIZE (APPROX.): 120 GB
PROGRAMMING LANGUAGE: JAVA X C++ .NET

CONTACT PERSON IN CHARGE OF DATABASE

NAME: Rod [redacted]
PHONE: +1 [redacted]
E-MAIL: [redacted]
ROLE: Chief Software Architect
I AGREE ON UNRESTRICTED USAGE OF THE DETAILS IN THIS FORM IN AN ADVERTISEMENT: X NO YES
DATE / SIGN:

DATABASE SATISFACTION REPORT

VENDOR: Versant
PRODUCT: Versant Object Database
VERSION: 7.0.1.3
ADD-ON MODULES: Vorkout
LEVEL OF SUPPORT: 24/7 Support

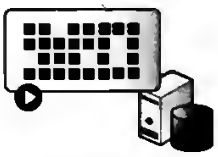
	POOR	FAIR	VERY GOOD	EXCELLENT
PERFORMANCE	☐	☐	☐	☒
AVAILABILITY	☐	☐	☐	☒
SCALABILITY	☐	☐	☐	☒
[illegible]	☐	☐	☐	☒

No. 090578

No. 090578

VERSANT Object Database

The majority of Versant's customers are not open to publicly talking about the use of the Versant Object Database in their software solutions. There's a very good reason for this: Their competitive advantage. Using the Versant Object Database – instead of traditional relational database systems – enables our customers to develop software solutions with a strong competitive advantage, particularly in applications that have high availability requirements and large data sets that use complex C++ or Java object models. Besides high-performance database technology, Versant provides enterprise-grade add-on modules – for example:



Workout

Versant Vorkout is an add-on module for the online reorganization of a Versant Object Database: Vorkout detects and reclaims unused space in the database while it is in normal operation, increasing available free space and therefore improving database performance on the fly. Especially software applications that write and delete large numbers of objects enjoy dramatic performance advantages.

[redacted] www.versant.com

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FRANK HAYES • FRANKLY SPEAKING

Nibble IT

SNACK-FOOD MAKER Lance Inc. just rolled out new handheld computers for its delivery salespeople — and in the process violated one of the core traditions of IT. How did Lance do that? By deciding to get the handhelds into users' hands as quickly and simply as possible (see story, page 20).

Instead of giving users new hardware, plus new business processes, plus dramatically different applications to support the new processes, plus a new back-end infrastructure to handle all that, for now Lance is just delivering the handheld hardware with software that's pretty much the same as what users had before.

Call that the "little nibble" approach — and recognize that it's heresy. In IT, we don't take little nibbles. We take big bites.

We roll up lots of changes in hardware, applications, infrastructure and process into one huge blowout project. Sure, that takes longer. It's more complex, harder to change and more likely to fail. And it drives users crazy, because it forces them to lose all their productive habits and learn their jobs all over again.

But big-bite projects are big and impressive. They have big budgets, big staffs and big schedules — all of which are highly beneficial for IT empire-builders or anyone who leaves before a big-bite project is done, because a huge, ambitious project that's still in development looks great on a résumé.

True, most huge projects are doomed to failure. But huge projects are also hard to kill, because some business sponsor made a big bet by funding that big bite, and big bettors don't like to admit they were wrong.

And big timelines make it easy to hide schedule slips and dead ends. In fact, the bigger a project is, the easier it is to hide failure of every kind for a long time.

No wonder we like big bites. They allow us to hide our failures, pad our résumés, indulge our egos and cover our butts.

Except, of course, that's not really why we do them. We take big bites because that's what we've always done. The big bite truly is an IT tradition.

Well, that and the fact that it takes a much more complex planning process to break a big project down into self-contained miniprojects, with real cost savings or ROI delivered after every little nibble. That's really hard to do, and it requires a finer-grained understanding of the project than with a traditional big bite.

Or anyhow, that's what we've always assumed.

Which brings us back to those iconoclasts at Lance. VP Mark Carter told *Computerworld*'s Matt Hamblen that his company is looking at ways to simplify the jobs of sales reps and wants to eventually use supply chain technology to provide them with "predictive" orders, and maybe even add in real-time sales updates — or maybe not.

Does that sound like a project plan? Nope. It doesn't even sound like a project plan obfuscated by a VP who doesn't want to give away too much to the competition.

It sounds more like a vague wish list, doesn't it?

It probably is. But that's OK.

What Carter has either brilliantly deduced or stumbled on by dumb luck is this: When you bite off little nibbles of a huge project, you don't have to know exactly what every nibble will involve. You just have to figure out what nibble to take right now.

In Lance's case, the right nibble now is new handheld hardware and slightly updated software. Carter figures those changes will cut support costs. That's a successful nibble.

After that, who knows? Somewhere down the line there will probably be process changes, infrastructure improvements and major application overhauls. Exactly what and when may not be nailed down now, but it doesn't have to be. Whatever those future nibbles entail, they'll leverage the new handhelds. Knowing that is enough for now.

Just enough, in fact, to let Lance keep chewing away successfully at business problems — one nibble at a time. ▸

FRANK HAYES, Computerworld's senior news columnist, has covered IT for more than 20 years. Contact him at frank_hayes@computerworld.com.

He Shoulda Known Better

Pilot fish gets a call from the facilities technician who handles this site's backup diesel generators. Facilities guy complains that something's wrong with his PC's uninterruptible power supply, because the PC goes off every time they switch off the power for a test. "When I checked his UPS, I noticed a bright yellow strip covering the three 'battery backup' plugs," says fish. I promptly pulled the yellow strip off and told him to plug his computer and monitor into the outlets marked 'battery backup' rather than 'surge suppress only.' "

SHARK TANK

Who's Don?

User is to an important meeting with other salesmen when his BlackBerry device vibrates. "He checks his message," reports a pilot fish in the know, "studies the sender's address for a while, then exclaims to the group, 'I keep getting e-mails from Don O. Trophy at BlackBerry.com. Does anybody know who that is?' No shows the salesman next to him, who after cracking up tells him it's donotreply@blackberry.com. The rest of the group now reminds him of it daily. Needless to say, he's a little hesitant to speak up anymore in meetings."

Cryptic

After corporate announces that everyone must now use encryption for e-mail, manager e-mails IT pilot fish: "Do we need to do anything about this?" Fish replies: Yes, you need to get PKI installed and then use it! Also, the info security officer, will guide you. Manager: "And who does that here?" Fish: Pay attention. As I said, Alice will guide you. Manager: "I am paying attention, and where do you say Alice will guide me?" Says fish, "I called Alice and told her I'm not responding again – this one is hers now."

Remote Remote

User complains to help desk pilot fish that she can't do her work from home using remote-desktop software, so she requests – and gets – a laptop. "The next day, we get a call because she can't connect to her PC from home anymore," fish says. "Yup, trying to remote to an 'office PC' sitting in her home at the time doesn't quite work well."

Network? Why?

Road warrior user calls support pilot fish from his hotel room because he can't send or receive e-mail. "I ask him if the network is working at the hotel he is in," fish reports. "He says, 'I don't know, and I don't care. I don't want to get on the network; I just want to send and receive e-mail!' "

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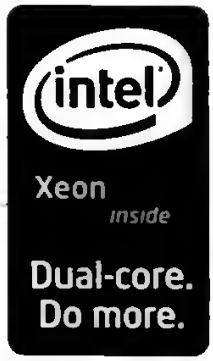

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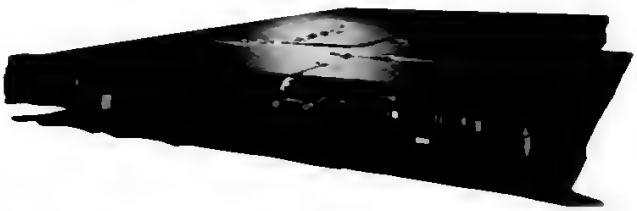

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